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OF THE NORWEGIAN SCIENTIFIC EXPEDITION TO TRISTAN DA CUNHA
1937–1938

EDITED BY
ERLING CHRISTOPHERSEN
Leader of the Expedition

VOLUME II

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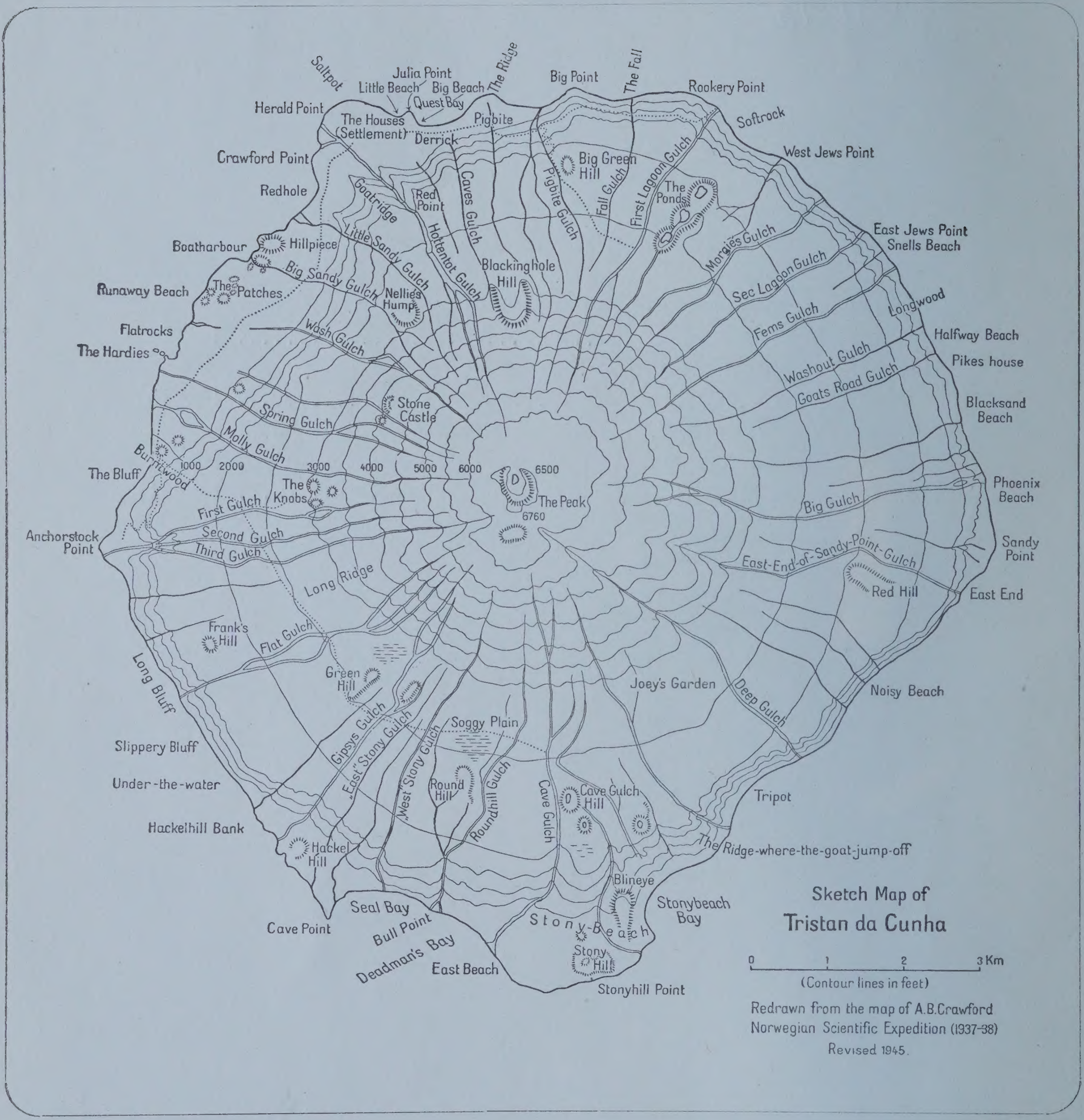

Saltpot
Julia Point
Little Beach
Big Beach
The Ridge
Quest Bay
Big Point
The Fall
Rookery Point
Herald Point
The Houses (Settlement)
Pigbite
Softrock
Derrick
West Jews Point
Crawford Point
Big Green Hill
Redhole
Goatridge
Red Point
Caves Gulch
Pigbite Gulch
Fall Gulch
First Lagoon Gulch
The Ponds
Boatharbour
Hillpiece
Little Sandy Gulch
Hottentot Gulch
Morgies Gulch
East Jews Point
Snells Beach
Big Sandy Gulch
Blackinghole Hill
Runaway Beach
The Patches
Nellies Hump
Sec Lagoon Gulch
Longwood
Flatrocks
Wash Gulch
Ferns Gulch
Halfway Beach
The Hardies
Washout Gulch
Pikes house
Goats Road Gulch
Stone Castle
Blacksand Beach
Spring Gulch
Molly Gulch
Burntwood
1000
2000
3000
4000
5000
6000
6500
The Bluff
The Knobs
The Peak
Phoenix Beach
6760
First Gulch
Big Gulch
Second Gulch
Anchorstock Point
Third Gulch
Sandy Point
East-End-of-Sandy-Point-Gulch
Long Ridge
Red Hill
East End
Frank's Hill
Flat Gulch
Long Bluff
Green Hill
Joey's Garden
Deep Gulch
Noisy Beach
Gipsys Gulch
Soggy Plain
East "Stony Gulch
Slippery Bluff
"West "Stony Gulch
Under-the-water
Round Hill
Roundhill Gulch
Cave Gulch
Cave Gulch Hill
Tripot
Hackelhill Bank
Hackel Hill
The Ridge-where-the-goat-jump-off
Blineye
Seal Bay
Stonybeach Bay
Cave Point
Bull Point
Stony-Beach
Deadman's Bay
Stony Hill
East Beach
Stonyhill Point
0
1
2
3 Km

Sketch Map of
Tristan da Cunha

(Contour lines in feet)

Redrawn from the map of A.B.Crawford
Norwegian Scientific Expedition (1937-38)
Revised 1945.

METEOROLOGICAL OBSERVATIONS

BY

ERLING CHRISTOPHERSEN AND GEORG SCHOU

Meteorology was not included in the research program of the expedition, as the limited period planned to stay on the island would probably not justify the expenditures of including a trained meteorologist with the necessary equipment. However, by the courtesy of the director of the Norwegian Meteorological Institute, Th. Hesselberg, the expedition was equipped with instruments for measuring temperature, rainfall, and atmospheric pressure, and the results of these readings together with observations on wind, clouds, and tides are presented in this paper. The readings and observations were carried out by the radio operator, Ragnar Eggesvik, and the assistant physician, Per Oeding. The latter prepared himself for the task through studies at the Norwegian Meteorological Institute, and the former is an experienced observer from service as chief of the Torgilsbu radio station (Greenland) of the same institute. Observations in the field were made by Erling Christophersen and other members of the expedition.

Instruments.

The instruments were placed at the house of the expedition near the settlement in the NW corner of the main island of Tristan da Cunha. The height of the station was 18 m s. m. The barometer, an Adie mercury barometer marked no. 1485, was placed inside the building, the top of the mercury column being at about eye-height, or 20 m s. m. The thermometers were placed in an instrument shelter on the S wall of the building, the centre of the shelter being about 1.5 m above the ground (see fig. 1). They consisted of an aspiration psychrometer, marked Fuess no. 105841, with dry and wet bulb thermometers reading to 0.1° C, and an ordinary minimum and maximum thermometer reading to 1° C. The temperature of the sea-water, as well as tidal measurements, were taken on Julia Reef, less than 200 m from the house and in a place with strong water circulation. A mercury

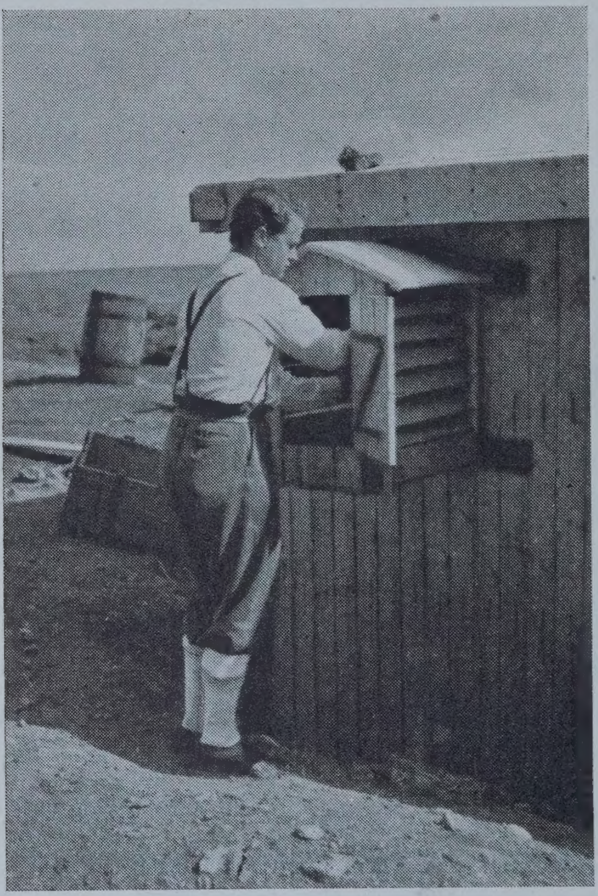

Fig. 1. The instrument shelter.

thermometer reading to 0.5° C was used. The same type of thermometers were also used for taking temperatures in the field and in the settlement after the departure of the expedition. For air temperatures the thermometers were placed in the shade freely suspended about 1.5 m above the ground and at least 10 cm away from the wall of the tent, field laboratory, or house.

The barometer and the thermometers of the aspiration psychrometer were checked before and after use, and all the other thermometers, except the one used in the settlement, were checked after use at the Norwegian Meteorological Institute and the necessary corrections accounted for.

The rain gauge was of the standard model used by the Norwegian Meteorological Institute, with a capacity of 220 mm, and was placed in open ground to the S of the house at a distance of about 30 m. Rain gauges of the same type were also placed at an altitude of about 650 m, on the top of the cliffs behind the settlement, called "the base" (i. e. the base of the mountain slopes), and at an altitude of 1920—1950 m in the crater of the main peak (figs. 2 and 3).

Climatological Records.

Complete meteorological observations were made at the main station during the period December 18, 1937—March 20, 1938. Rainfall was measured in the peak crater during the period January 6—March 23, on the base above the settlement January 21—March 23, and on the base above Burntwood, in the W part of the island, for 15 days in January (Jan. 6—21). For the remainder of the year 1938 temperature at the settlement and rainfall at the settlement as well as on the base and in the peak crater were recorded by one of the islanders, John Lavarello. Temperatures were recorded by Erling Christophersen and Allan Crawford on the base above Burntwood from January 6 to 21, and by the former for $4^1/_2$ weeks in February and March on Nightingale

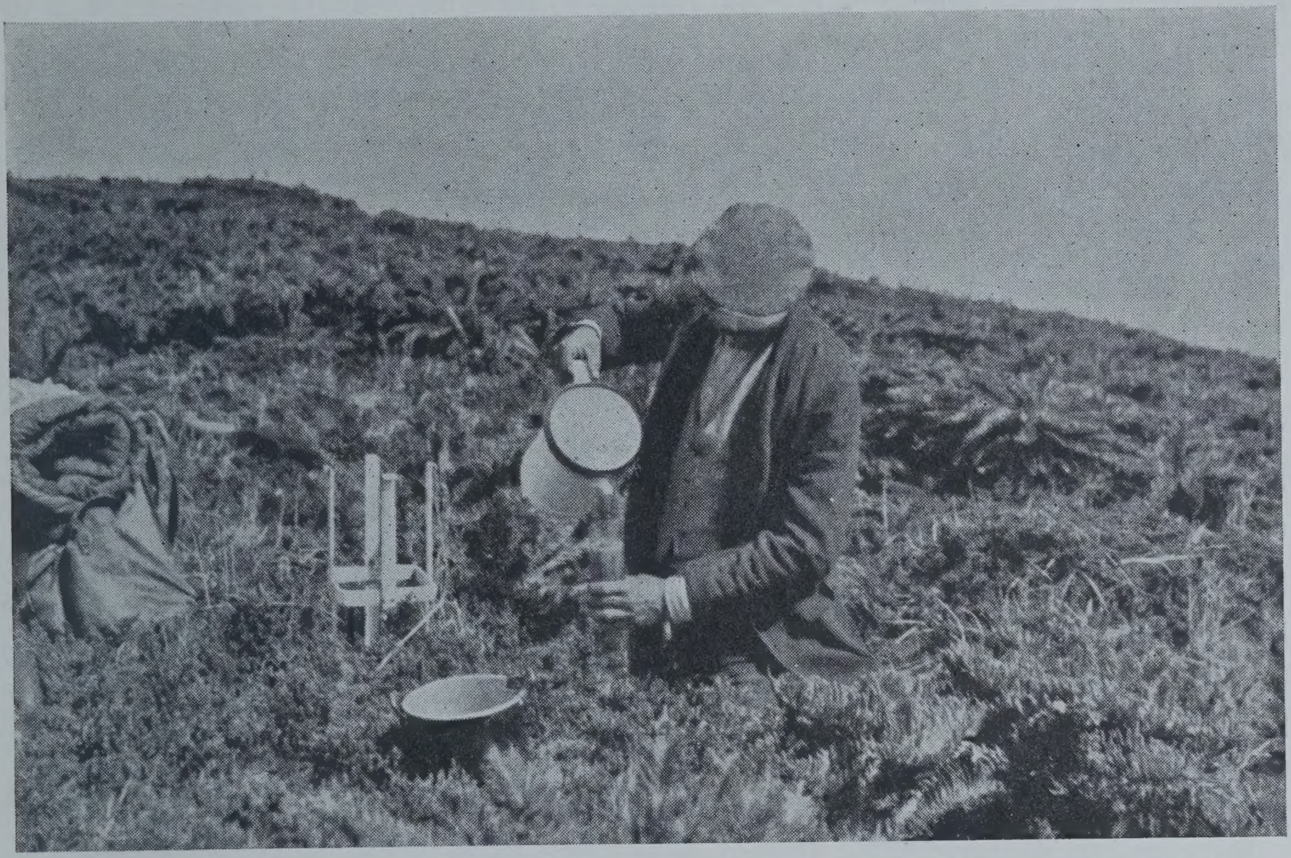

Fig. 2. John Lavarello measuring rainfall at "the base".

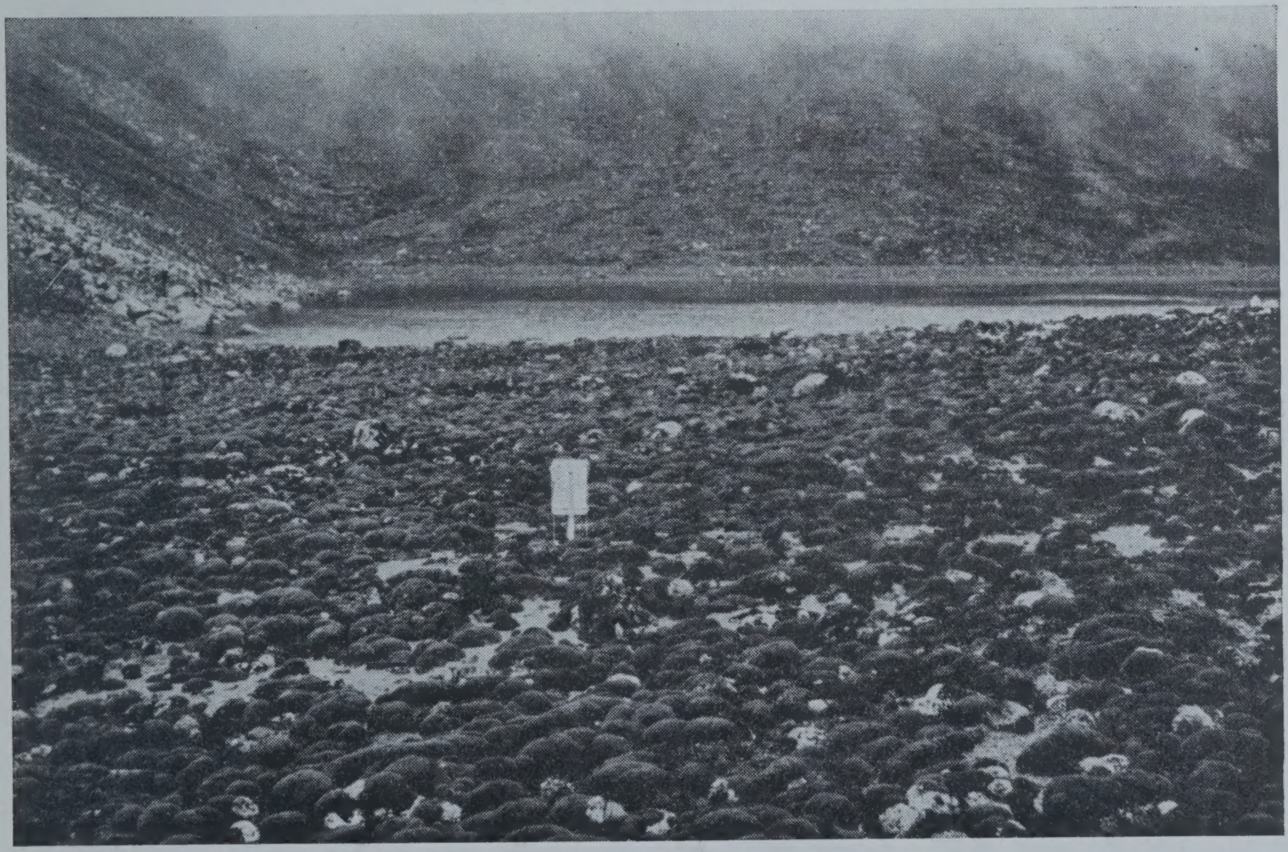

Fig. 3. Rain gauge in the crater of the main peak.

and Inaccessible islands, where temperatures of the sea-water were also taken by Erling Sivertsen.

It thus appears that complete climatological records exist for two entire months only, namely January and February 1938. Mean annual values could be computed only for temperature and rainfall.

The mean monthly temperatures for January and February have been calculated as the arithmetic mean of the 5 h, 17 h (local time), maximum, and minimum observations. For the remainder of the year, with only 2 daily observations (6 h and 18 h) and no maximum and minimum values, the monthly means are calculated as the average of these two values. The resultant means probably come out about 0.2° too low by this method. For comparison it may be noted that the monthly mean for January, calculated from the 4 observations 5 h, 17 h, maximum, and minimum, is 18.1° C, but that it is only 17.8° C calculated from the 2 observations at 5 h and 17 h. The corresponding figures for February are 18.6° and 18.4°.

The climatological data for January and February are presented in table 1, and the temperatures and rainfall for the entire year in table 2.

From these tables it appears that the atmospheric pressure in January and February was of medium height.

With regard to temperature February shows the highest monthly mean (18.6° C), and September the lowest (10.6° C). The highest temperature recorded was 24.8° C on February 16 (read on the maximum thermometer), and the lowest temperature was 4.5° C on September 2 (read with an accuracy of 0.5° C). Thus the temperature did not fall below the freezing point. On the other hand, the temperature can not be said to have been tropical at any one time as figures above 25° C do not occur.

The highest amount of rainfall was recorded for May with 339.5 mm, and the lowest for January with 26.3 mm. The greater part of the rain falls in autumn and winter, these two seasons showing more than twice the amount falling in spring and summer. The total rainfall for the year was 1751 mm.

The relative humidity was high in January and February, 81 % and 78 % respectively.

The mean cloudiness in January and February was 7.2 for both months.

The prevailing direction of the wind was W. Next in frequency were WSW and SW, northerly and easterly winds occurring but rarely. Absolute calm was not recorded during the stay of the expedition. High winds were not rarely recorded: in January there were 6 days and in February 9 days with winds of force 6 ("strong wind") and above. Once a hurricane was recorded, namely on the night of March 11th.

January had 15 rainy days and February had 16. (In December and March the number of rainy days seems to have been even higher.) January had 4 days and February 13 days with a rainfall equal to or greater than 1.0 mm. January had no days with a rainfall equal to or greater than 10.0 mm, but February had 3 such days.

Fog was frequent, there being 9 foggy days in January and 5 in February. The corresponding number of days with part sunshine was 14 and 17. Clear days were rare: 2 in January and 1 in February. Days with overcast sky were 17 and 9 respectively.

Thunderstorms did not occur during the stay of the expedition.

The mean monthly temperature of the sea-water was 16.7° C for January and 18.4° C for February.

Observations on the clouds are given in table 3, from which it appears that low lying clouds were predominant, particularly nimbus.

The table of tides (table 5) shows that there is but a slight difference between the averages for morning, noon, and evening observations. The noon averages are the highest and the evening averages the lowest. However, single observations may show a difference of as much as 80 cm between morning and noon. The zero-point is arbitrarily chosen.

Daily Observations at the Settlement.

The daily observations at the settlement during the stay of the expedition are presented in table 4. This table contains:

1. Date.
2. Atmospheric pressure (in millibar) at the elevation of the station.
3. Temperature of the air. Observations at 5 h, 11 h, and 17 h, and maximum and minimum temperatures (in ° C). The extreme maxima and minima are printed in bold face figures.
4. Temperature of the sea-water (in ° C).
5. Relative humidity (in %). Minimum values are printed in bold face figures. (The observations are calculated from dry and wet bulb thermometer readings.)
6. Direction of the wind (in letters). Force of the wind in Beaufort scale.
7. Visibility on a scale of 0 ($\leqq$ 50 m) to 10 ($>$ 150 km).
8. Cloudiness on a scale of 0—10, the figures indicating tenths of the sky covered by clouds. Weather at the observation hour, using the following symbols:

n night	∞ haze	, drizzle	
a forenoon	= mist	• rain	⊙ sunshine
p afternoon	≡ fog	$\overset{\bullet}{\nabla}$ shower of rain	

9. Rainfall in mm, measured at 5 h and recorded for the day of measurement.
10. Run of the weather, using the same symbols as for the weather at the observation hour.

The daily observations (temperature and rainfall) carried out at the settlement by John Lavarello for the remainder of the year 1938 are presented in tables 6 and 7.

Observations in the Field.

The field observations carried out by various members of the expedition are rather fragmentary, but considering the fact that meteorological data from the Tristan da Cunha group are exceedingly scanty and that no observations exist for places outside the settlement, the results are thought to be of interest. Temperatures and rainfall at the camp above Burntwood are presented in table 8. The camp was situated on the base in tree-fern scrub at the forest limit, about 650 m s. m., in the W (windward) part of the island. The table shows that in the period January 6th—21st the total rainfall was 62.6 mm. At the station by the settlement the rainfall was only 9.0 mm — or one seventh — in the same period. A similar comparison is possible also for the field station at about the same altitude on the base above the settlement in the N part of the island. At this station the total rainfall in the period January 28th—March 23d was 295.5 mm, the corresponding figure for the settlement station being 191.3 mm — or two thirds. It is naturally to be expected that the rainfall is heavier in the W than in the N part of the island and these figures give some idea of this relation. Unfortunately no observations were made in the E (leeward) part.

From the temperatures presented in table 8 it appears that the average temperature compiled from 5—5.30 h and 17—17.30 h observations was 13.5° C for the period January 5th—21st. The average minimum temperature was 11.0° C, while the extreme was + 3.5° C on January 20th. The corresponding figures for the station at the settlement were 18.2° C, 16.6° C and a minimum of 12.5° C on January 20th, the extreme minimum for the period being 11.9° C on January 19th.

On the two smaller islands of the group, Nightingale and Inaccessible, temperature of the air and sea-water were recorded for the period February 2nd—March 6th (tables 9 and 10). The Nightingale station was situated at an altitude of 16 m in the tussock field on top of the sea cliff at the landing in the NE part of the island. The Inaccessible station was situated on the shore at Blenden Hall in the W part of the island. The morning and minimum temperatures are generally slightly lower for both stations than those recorded at the settlement. The noon temperatures, however, are generally higher. The extreme minimum recorded was 11° C occurring on February 24th. The temperatures of the sea-water show good agreement with those recorded at the settlement, the averages for the period in question being 18.57° C for Nightingale and Inaccessible and 18.53° C for Tristan da Cunha.

Rainfall was recorded at two stations in the field, namely on the base above the settlement (650 m s. m.) and in the peak crater (1920—1950 m s. m.). The rain gauges were visited weekly by one of the inhabitants, John Lavarello, and the results are shown in table 11. The observations were carried out through the year 1938 from January 6th (the peak) and January 28th (the base) respectively, excepting the period with snow: May 22nd—October 2nd. It appears that the total rainfall recorded at the peak for the period January 28th—December 31st (not including the amount measured on October 2nd) was more than 2877 mm (at two visits the rain gauge had overflown), while the corresponding figure for the base was more than 1584 mm (also twice overflown). For a comparison with the rainfall at the settlement we disregard the overflown rain gauges and the rainfall at the settlement for the corresponding periods. The resulting figures are 2437 mm for the peak, 1144 mm for the base, and 693 mm for the settlement, or a ratio of 3.52 : 1.65 : 1.

Comparison with South African Stations.

A comparison of the meteorological conditions in Tristan with simultaneous observations at the nearest meteorological stations is at present not possible as records from these stations are not as yet available. However, it may be of interest to compare the observations at Tristan da Cunha with mean figures for neighbouring stations, and for this purpose we have selected two stations on the west coast of South Africa, namely Cape Town and Cape Agulhas (table p. 8). It appears from this comparison that the temperatures in Tristan da Cunha are somewhat lower than for the other two stations, the difference being greatest in the spring. The winter means correspond fairly closely. The rainfall at Tristan da Cunha seems greatly to exceed that for the

Comparison of Mean Temperature and Rainfall with Stations on the West Coast of South Africa.

Station	Mean temperature °C			Rainfall, mm				
	Cape Town[1]	Cape Agulhas[1]	Tristan da Cunha	Cape Peninsula[1]	Tristan da Cunha			
Latitude	33° 56′ S	34° 50′ S	37° 3′ S	34° 0′ S	37° 3′ S			
Longitude	18° 29′ E	20° 1′ E	12° 18′ W	18° 4′ E	12° 18° W			
Altitude	12 m	16 m	18 m	84 m	18 m			
					(1907)[2]	(1907 —08)[2]	(1908 —09)[2]	(1938)
Summer (Dec.—Feb.)	20.2	19 0	18.0	68	-	347	331	241
Autumn (March—May)	16 7	16 6	15.5	222	-	413	-	593
Winter (June—Aug.)	12.7	12.9	12.1	374	575[3]	429	-	583
Spring (Sept.—Novbr.)	15.8	15 3	12.3	174	537	400	-	334
Year	16.4	15.9	14.5	838	-	1589	-	1751

[1] J. Hann (1911, III, p. 454; 458).
[2] K. M. Barrow (1910, p. 277—278).
[3] June 4—August 31.

west coast of South Africa. In 1908, as well as in 1938, the total rainfall at Tristan was more than twice as high as the average for the Cape Peninsula. There is a correspondence in so far as the greatest amount of rainfall comes in winter and autumn at both places.

Previous Observations.

Previous meteorological observations in Tristan da Cunha are very scanty. The Meteorological Office, London, has kindly drawn attention to observations carried out for three and one half months in 1816, when a garrison from South Africa was stationed on the main island. A summary of the results is given in the following table.

1816	Days of Rain	Days when landing impossible	Temperature °C		
			Mean	Max.	Min.
Aug. 15—31	14	13	10.0	27.8	5.5
Sept. 1—30	25	16	12.8	26.7	4.4
Oct. 1—31	17	17	14.4	26.7	8.3
Nov. 1—27	16	17	13.3	23.3	6.1

More detailed data are published in a Blue Book (1906), which also gives a summary of the various meteorological notes made on the occasion of visits of various ships, or obtained from the islanders.

The Rev. J. G. Barrow kept records of temperature and rainfall part of the time he stayed on the island (1906—1909), and his wife, Mrs. K. M. Barrow (1910), has published the monthly rainfall (see table 12) and the extreme temperatures. In the period Feb. 15, 1908 to March 31, 1909 the lowest temperature as recorded in a Stevenson's screen was 3.3° C (Aug. 16, 1908) and the highest 25.4° C (March 14, 1909). These figures agree closely with those obtained by the expedition.

During the years 1922—1926 observations on the weather were regularly carried out at the settlement by one of the islanders, Robert Franklin Glass, who is one of the outstanding members of the colony, having lived for several years in South Africa. His records are deposited in the archives of the parsonage at Tristan da Cunha and were copied by the sociologist, P. A. Munch. They include observations on the direction and strength of the wind, the character of the sea, the landing conditions, and the weather in general.

For the period July 1922—July 1925 hailstorms were recorded 11 times, 6 times in the months of June and July, and once in each of the months of May, August, September, October, and November. It appears from the notes that these hailstorms do a great deal of damage to the grass and small stock on account of the large size of the stones. Snow was frequently recorded for the upper mountain slopes, but only once (possibly twice) was snow recorded for the settlement. Thunder was recorded 8 times during this period, 7 times in the months of April—July and once in December.

The weather in general was characterized as fine, cloudy, overcast, foggy, and rainy, and the wind was recorded for 16 points of the compass-card. The relation between weather and direction of wind for the years 1923 and 1924 is tabulated in table 13. To eliminate the irregularities resulting from the apparent tendency of the observer to pay more attention to the main directions of NE, E, SE, etc., neglecting to some extent the intermediate divisions of the compass-card, we have divided the records for these intermediate divisions equally between the nearest main ones.

It appears from table 13 that the predominant wind directions are SW to NW, winds from these directions occurring on about two thirds of the total number of days. Winds from E are most rarely recorded. The SE, S, SW, and W winds are associated mainly with fine and cloudy weather, while the NW, N, and NE winds are associated chiefly with overcast, foggy, and rainy weather. The rare E and SE winds are associated with rain for about one quarter of the days, but no fog has been recorded for this sector. The total figures show that the days are about equally distributed between fine, cloudy, overcast, and foggy +rainy weather, approximately one quarter on each.

At the beginning of 1927 The Meteorological Office, London, sent a set of instruments to Tristan da Cunha on loan to the Rev. R. A. C. Pooley, who obtained some records between 1927 and 1929. However, these records were unfortunately lost and on the arrival of his successor the instruments were found to be broken.

The Rev. H. M. Rogers also recorded temperature at the settlement during his sojourn (1922—1925), and his notes are deposited in the archives of the parsonage in Tristan da Cunha.

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Barrow, K. M.: Three Years in Tristan da Cunha. London 1910.

Further Correspondence relating to the Island of Tristan da Cunha in continuation of (Cd 1600) June 1903. Blue Book (Cd 3098) Sept. 1906. Publ. by H. M. Stat. Office.

Hann, J.: Lehrbuch der Klimatologie. Stuttgart 1911.

Table 1. *Climatological Data at the Settlement. 1938.*

$\varphi = 37° 3' S.$ $\lambda = 12° 18' W.$ $g = 9.799.$ $\triangle G = -1^h.$ $H_s = 18$ m. $H_b = 20.0$ m. $h_t = 1.5$ m.

Month	Mean Pressure P_m	Mean Pressure reduced to Sea-level $P_{o,m}$	Mean Air Temperature T_m				Air Temperature T						Wind, Number of Observations of Direction and Mean Force $n D, F_m$																
			5^h	11^h	17^h	Mean	$\overline{\text{Max}}$	$\overline{\text{Min}}$	Max	Dat	Min	Dat	N		NE		E		SE		S		SW		W		NW		C
I	1018.5	1020.9	16.6	19.3	18.9	18.1	20.9	15.8	24.0	5,30	10.0	4	0.5	1.0	4.5	1.8	6	1.5	4.5	2.3	9	2.1	18	3.1	42	4.2	8.5	2.8	0
II	1013.9	1016.3	17.4	20.2	19.3	18.6	21.6	16.1	24.8	16	13.2	26	2.5	5.2	3	2.7	8.5	2.3	4	3.1	6	4.9	15.5	4.0	39	4.0	5.5	3.8	0

Month	Mean Relative Humidity U_m				Mean Cloud Amount N_m			Rainfall R			Number of Days n																				
											Air Temperature T				Rainfall R			Force of Wind F													
	5^h	11^h	17^h	Mean	5^h	11^h	17^h	Σ	Max	Dat	Min < 0°	Max < 0°	Min < −10°	Max > 25°	$R \geqq 0.1$	$R \geqq 1.0$	$R \geqq 10.0$	$F \geqq 6$	$F \geqq 8$	$F \geqq 9$	Rain $\geqq 0.1$	Snow $\geqq 0.1$	Sleet $\geqq 0.1$	Drizzle	Hail	Thunder	Mist	Fog	Sunshine	Clear	Overcast	Snow Cover
I	86	78	78	81	7.3	7.2	7.1	26.3	8.0	3	—	—	—	—	15	4	—	6	1	—	15	—	—	1	—	—	3	9	14	2	17	—
II	85	74	74	78	6.8	7.5	7.3	116.3	51.5	10	—	—	—	—	16	13	3	9	1	—	16	—	—	—	—	—	—	5	17	1	9	—

Table 2. *Temperature and Rainfall*

Month	Air Temperature					Rainfall		
	Mean	Max	Dat	Min	Dat	Σ	Max	Dat
I........	18.1	24.0	5, 30	10.0	4	26.3	8.0	3
II.......	18.6	24.8	16	13.2	26	116.3	51.5	10
III......	17.0*	23.5*	4	10.5*	11	80.0*	21.5	5
IV......	15.8	22.5	8	9.0	24	173.5	34.0	22
V.......	13.7	19.5	17	9.0	26	339.5	60.0	21
VI......	13.0	20.0	20	8.0	4, 9	145.0	37.0	29
VII.....	11.6	18.0	14	5.0	26	274.0	152.0	24

* Interpolated values.

Table 3.

Date	December 1937						January 1938					
	5^{h}		11^{h}		17^{h}		5^{h}		11^{h}		17^{h}	
	Form	Direction	Form	Direction	Form	Direction	Form	Direction	Form	Direction	Form	Direction
1							Ci	24	Ci	24	As	26
2							-	-	Ns	24	Ns	24
3							ACu	24	Ci	24	Ci	24
4							Ci	24	Ci	08	Ci	08
5							Ns	08	Ns	08	Ac	16
6							St	30	Ac	24	Ns	24
7							Ns	24	Ns	24	Ac	24
8							Ac	30	Ac	26	Ns	24
9							Ns	28	Ns	26	Ns	24
10							Ns	24	Ns	24	Ns	24
11							Ns	22	Ns	22	Ns	24
12							Ns	24	Ns	24	Ns	24
13							Ns	26	Ns	26	Ns	26
14							Ns	24	Ns	24	Ns	26
15							Ns	22	Ns	24	Ns	24
16							Ns	29	Ns	24	Ns	24
17							Ns	22	Ns	22	Ns	24
18	Ns	01	Ns	05	Ns	01	Ns	26	Ns	28	Ci	24
19	Ns	01	Ns	10	Ns	10	Ci	16	Ci	30	-	-
20	St	20	St	20	Ns	20	ACu	16	Ci	08	StCu	30
21	Ns	20	Ac	20	Ns	24	Ns	29	Ci	28	Ns	28
22	Ns	19	Ns	20	Ns	20	Ns	24	Ns	20	Ns	24
23	Ns	26	Ns	12	Ns	×	Ci	22	Ci	22	Ci	22
24	Ns	24	As	20	As	20	Ci	22	Ci	20	Ci	24
25	Ns	26	Ns	26	Ns	26	StCu	28	Ci	32	StCu	32
26	Ns	24	As	24	Ac	24	Ns	30	Ns	28	Ns	20
27	Ns	24	As	24	Ci	26	Ns	20	ACu	18	Ns	16
28	Ns	11	Ns	16	Ns	14	ACu	16	Ci	-	Ci	08
29	Ns	08	As	04	Ci	04	StCu	08	Ci	08	-	-
30	Cu	07	Cu	04	Ns	06	Ns	08	Ns	20	Ns	22
31	Ns	24	As	24	Ci	24	Ns	28	Ns	24	Ns	26

at the Settlement. 1938.

Month	Air Temperature					Rainfall		
	Mean	Max	Dat	Min	Dat	Σ	Max	Dat
VIII	11.8	17.0	26	7.0	13	164.0	21.0	30
IX.......	10.6	18.0	14	4.5	2	170.0	24.0	25
X	12.2	16.5	30	6.0	2	52.0	8.0	9, 30
XI.......	14.2	18.5	8	8.5	2	112.0	41.0	26
XII......	17.2	21.0	11	11.0	13	98.0	32.0	20
1938	14.5	24.8	16/II	4.5	2/IX	1750.6	152.0	24/VII

Observations on Clouds.

Date	February 1938						March 1938					
	5^h		11^h		17^h		5^h		11^h		17^h	
	Form	Direction	Form	Direction	Form	Direction	Form	Direction	Form	Direction	Form	Direction
1	Ns	24	Ci	24	FC	26	Ns	24	Ci	24	Ci	24
2	StCu	22	-	-	-	-	Ns	30	StCu	30	FC	30
3	StCu	24	StCu	20	Cu	12	Ns	22	Cu	20	FC	24
4	Ns	30	Ns	22	Ns	22	Ns	24	Ns	24	Ns	28
5	Ns	30	Ns	30	Ns	30	Ns	10	Ns	28	Ns	24
6	Ns	03	Ns	31	Ci	30	Ns	24	Ns	24	Ns	22
7	Ns	24	Ns	22	Ns	28	Ns	26	Ns	18	Ns	27
8	Ns	22	StCu	22	Ns	22	Ns	22	Ci	16	Ci	16
9	Ns	30	Ns	12	Ns	04	StCu	02	Ci	26	Ns	28
10	Ns	24	As	22	Ns	20	Ns	30	Ns	24	Ns	20
11	Ns	22	Ns	22	Ns	22	Ns	18	Ns	20	Ns	24
12	Ns	22	Cu	22	Cu	24	Ns	27	Ns	24	Ns	28
13	Ns	18	Cu	24	Cu	24	Ns	24	Ns	24	Ns	24
14	Ci	22	Ci	20	Ns	08	Ns	24	Ns	24	Ns	24
15	Ns	24	Ns	24	Ci	28	Ns	20	Ci	22	Ns	24
16	Ns	28	Ns	24	Ns	24	Ns	24	FC	26	Cu	28
17	Ns	24	Ns	24	Ci	24	Ns	30	Ns	28	Ns	24
18	Ns	24	Ci	24	Ns	24	Ns	24	Ns	24	Ns	20
19	Ci	28	-	-	-	-	Ns	20	FC	26	Cu	26
20	Ns	24	Ns	24	Ns	24	Ci	16				
21	Ns	24	Ns	20	Ns	24						
22	Ns	24	Ns	24	Ns	24						
23	Ns	26	Ci	24	Ns	24						
24	Ns	22	FC	24	FC	24						
25	Ns	26	Ns	26	FC	26						
26	Ns	26	Ns	28	Ns	28						
27	Ns	30	Ns	30	Ns	32						
28	Ns	28	Ns	28	Ns	20						

Table 4. *Daily Observations*

$\varphi = 37° 3' S.$ $\lambda = 12° 18' W.$ $g = 9.799.$ $\Delta G = -1^h.$

Date	Pressure P			Air Temperature T					Sea Temperature	Relative Humidity U		
	5^h	11^h	17^h	5^h	11^h	17^h	Max.	Min.	11^h	5^h	11^h	17^h
1937												
Dec. 18	1018.9	1019.0	1018.7	16.9	17.9	17.6	20.0	16.1	15.7	94	91	90
19	17.6	17.6	15.5	17.4	17.4	16.2	17.6	15.7	16.0	93	95	100
20	12.0	11.6	12.0	16.8	18.0	18.4	20.3	15.8	**16.4**	100	99	98
21	14.1	16.1	16.7	17.5	20.0	17.3	21.6	17.2	**16.4**	99	90	79
22	14.5	15.0	15.7	18.2	17.6	15.3	20.2	15.3	15.8	98	94	96
23	13.8	11.5	09.0	14.2	17.3	18.4	18.9	13.7	15.1	98	91	94
24	**04.1**	06.6	08.1	16.4	18.6	17.2	18.6	16.4	15.6	85	71	80
25	09.4	09.9	09.4	16.0	17.6	17.0	19.0	15.0	**15.0**	89	82	84
26	13.7	16.5	17.8	16.2	20.4	18.5	21.0	15.2	15.5	84	**61**	67
27	18.9	**19.2**	18.6	16.0	21.8	20.4	**24.1**	13.4	15.4	83	67	78
28	14.9	12.6	08.7	17.9	18.4	19.0	20.4	15.4	16.0	97	97	90
29	09.7	14.0	16.1	15.9	17.6	17.0	20.0	15.4	16.0	90	78	74
30	15.0	14.3	11.3	13.9	18.5	16.4	19.6	**12.9**	15.8	95	64	77
31	09.1	09.9	10.1	14.9	17.2	17.8	18.1	14.9	15.4	77	86	74
1938												
Jan. 1	1011.7	1011.1	1011.8	14.4	18.5	16.8	18.5	13.9	15.6	74	74	83
2	13.8*	13.5	13.7	13.0*	16.2	15.6	17.8	13.0	15.2	89*	87	71
3	18.8	22.6	25.0	13.5	16.8	17.4	18.7	13.0	**14.8**	70	61	49
4	26.5	26.2	26.5	10.8	18.0	17.6	20.1	**10.0**	16.0	81	57	68
5	25.2	25.5	24.3	15.5	17.6	20.0	**24.0**	13.5	16.2	76	76	69
6	23.2	24.5	23.6	17.8	20.8	20.0	21.5	17.4	16.0	98	78	74
7	24.0	25.3	24.1	18.1	19.8	20.2	22.2	17.7	15.8	95	76	76
8	23.7	23.9	22.1	17.8	20.4	19.8	22.3	17.3	15.8	97	85	87
9	20.2	21.0	19.4	18.8	20.4	19.0	21.5	17.5	16.8	85	85	88
10	17.4	17.6	16.1	18.6	18.8	18.6	19.0	17.6	16.0	98	96	98
11	13.3	12.4	11.2	17.8	18.5	18.8	19.0	17.3	16.2	97	97	94
12	10.2	10.8	10.7	18.0	18.9	19.4	19.9	17.5	16.0	97	93	92
13	13.8	15.0	16.3	18.8	20.3	18.8	20.3	17.6	16.4	100	87	96
14	18.6	19.5	19.1	17.9	20.8	19.5	21.5	17.4	17.0	100	91	93
15	18.7	19.5	19.0	19.0	21.2	20.4	23.5	18.0	16.8	98	87	87
16	17.6	17.3	16.1	20.0*	20.7	20.8	21.3	18.8	17.2	91*	92	92
17	13.1	15.7	15.0	20.2	20.4	20.2	21.2	20.2	17.4	96	95	93
18	15.0	17.1	18.7	16.8	18.2	17.1	20.2	16.3	16.6	83	69	67
19	22.2	23.8*	25.7	12.4	22.0*	17.2	22.0	11.9	17.0*	88	74*	72
20	**26.8**	26.5	25.7	14.0	20.6	18.5	21.0	12.5	17.3	77	54	63
21	22.6	21.4	18.4	17.3	20.6	19.8	22.3	16.3	17.6	75	73	73
22	14.2	13.4	11.4	19.0	20.2	19.9	20.4	18.5	17.5	91	93	93
23	**07.0**	11.2	15.9	16.2	18.4	16.7	19.2	15.7	16.8	79	60	70
24	20.4	22.4	22.2	14.8	18.2	18.7	20.7	14.3	17.5	57	67	55
25	21.2	21.0	18.1	16.6	19.5	20.0	21.5	15.1	17.4	70	65	72

at the Settlement.

$H_s = 18$ m. $H_b = 20.0$ m. $h_t = 1.5$ m.

Wind. Direction and Force D, F			Visibility V	Cloud Amount and Weather N, w			Rainfall R	Course of Weather W
5h	11h	17h	11h	5h	11h	17h		
NNE 2	NE 3	ENE 1	8	10≡° $\overset{\bullet}{\nabla}$	10∞° $\overset{\bullet}{\nabla}$	10=° $\overset{\bullet}{\nabla}$	-	$\overset{\bullet}{\nabla}$ ≡ a, $\overset{\bullet}{\nabla}$ p
E 5	S 7	ESE 6	4	10=° $\overset{\bullet}{\nabla}$	10 ● =°	10 ●	1.0	$\overset{\bullet}{\nabla}$ = a, ● p
SSW 2	SW 4	SW 5	3	10≡ ●°	10≡ $\overset{\bullet}{\nabla}$	10≡ ●	31.1	≡ ● n, a, p
W 5	W 3	NW 1	7	9≡° ●°	8 ●°	9 ●°	6.9	● n, a, p
SSW 3	S 4	SW 3	1	10 ●	10≡ ●°	10 ●°	12.8	● n, a, ≡° ● p
WNW 1	E 2	SSW 5	3	10 ●	10 ●	10 ●	6 8	● n, a, p
W 9	SW 6	SW 6	9	8	7 ⊙	8	42.9	● n
WNW 6	WNW 5	WNW 4	9	9	9	9	-	
W 6	W 5	W 5	9	9	7 ⊙	6 ⊙	0.1	⊙ a, ⊙° p
W 3	W 2	W 1	9	9	4 ⊙	3 ⊙	-	⊙ a, p
ESE 4	S 6	SSE 6	6	10 ●°	10	10	0.2	●° n, ● a, p
E 2	NE 3	NE 2	9	9	5 ⊙	8 ⊙	11 5	⊙ a, p
S 2	NE 3	NE 1	9	6	7 ⊙	8	-	⊙ a, p
W 4	NW 5	NW 5	9	10	8 ⊙	5 ⊙	0.2	$\overset{\bullet}{\nabla}$ n, $\overset{\bullet}{\nabla}$ ⊙ p
NW 3	SW 3	SW 4	9	3	5 ⊙°	8	0.0	⊙° a
W* 4	W 4	W 7	3	10* ●	10 ●²	6	0.5*	● n, ● a, p
W 7	W 6	WNW 3	9	4	5 ⊙	3 ⊙	8.0*	⊙ a, p
SW 1	NE 2	NE 2	9	1	1 ⊙	5 ⊙	-	⊙ a, p
SE 2	S 2	S 1	9	10	10	3 ⊙	-	⊙ p
WSW 3	WSW 3	WNW 2	9	3	5 ⊙	8	-	⊙ a, p
W 3	W 2	W 3	6	10	10 ●°	7 ⊙°	-	●°a, ⊙ p
W 2	W 2	W 3	9	1	8	9	0.1	⊙° p
W 5	W 5	W 5	8	10	10	10	-	
W 5	WSW 5	W 5	3	10 ● ≡	10 ● ≡	10 ●°≡	3.7	≡ ● a, p
WSW 6	SW 6	W 6	4	10≡	10≡	10≡ ●	0.7	≡ ● a; p
W 8	W 8	W 7	4	10≡ ●	10 ●°	10	0.9	≡ ●° n, a, p
WNW 7	W 6	W 7	8	10	10	10 ●°	1.0	●° p
W 5	WNW 4	NW 3	7	10 ● ≡	8 ⊙°	8 $\overset{\bullet}{\nabla}$	0.5	≡ ● n, $\overset{\bullet}{\nabla}$° a, p
WSW 3	WSW 3	WNW 3	9	10≡ ●	10	10	0.9	≡ ● n, ● a
WNW 3	SSW 4	WNW 3	9	6	10	10	0.5	
SW 3	WSW 3	W 3	3	10≡ ●	10≡ ●	10	0.3	≡ ● n, a, ●° p
ESE 1	SW 2	WSW 4	9	10	2 ⊙	2 ⊙	0.4	⊙ p
S 1	W* 1*	NNW 1	9*	1	1* ⊙	1 ⊙	-	⊙ a, p
S 1	E 1	NE 1	8	1	1 ⊙	10	-	⊙ a, p
NW 1	WNW 2	SSE 3	7	9	8∞°	9 ⊙	-	⊙ p
WSW 2	SSW 4	W 3	4	10	10=	10≡°	-	= n, a,≡° p
SW 7	W 7	W 6	8	1	0 ⊙	1 ⊙	0.9	●² ⊙ a,⊙ p
SW 3	W 2	WSW 1	8	4	4 ⊙	1 ⊙	0.7	⊙ a, p
W 1	SW 2	SSE 2	9	10	8	5	-	

Table 4 (Cont.).

Date	Pressure P			Air Temperature T					Sea Temperature	Relative Humidity U		
	5h	11h	17h	5h	11h	17h	Max.	Min.	11h	5h	11h	17h
1938												
Jan. 26	1014.0	1013.6	1011.5	19.8	20.0	20.0	20.8	19.3	17.3	89	92	95
27	15.4	19.6	20.5	14.4	17.8	17.6	20.6	13.9	17.5	86	62	**52**
28	22.0	22.9	22.1	12.7	17.1	16.6	19.1	11.7	17.8	73	54	61
29	21.7	21.9	19.8	14.3	19.4	21.2	22.2	12.8	17.6	68	53	64
30	16.9	16.8	17.6	18.4	20.8	20.8	**24.0**	17.4	**17.9**	93	91	94
31	11.8	10.9	11.1	19.4	18.8	17.6	20.8	17.1	17.4	90	92	86
Mean	1018.1	1018.8	1018.5	16.6	19.3	18.9	20.9	15.8	16.7	86	78	78
1938												
Febr. 1	1011.4	1011.4	1012.3	16.2	18.9	17.3	19.8	15.2	17.8	57	61	66
2	15.8	14.7*	15.4	14.7	19.0*	17.5*	20.5	13.7	18.0*	66	63	66*
3	17.2	17.1	15.0	15.9	20.2	20.1	24.6	13.9	18.2	72	69	70
4	14.0	15.0	14.9	21.0	21.6	21.8	23.1	18.5	18.6	89	87	86
5	15.4	16.7	12.5	21.2	21.6	22.2	23.0	20.7	18.4	88	87	84
6	14.3	14.9	12.9	21.2	20.4	20.8	21.2	20.2	18.4	95	93	72
7	13.2	14.5	14.1	17.9	19.6	19.7	21.7	16.9	18.2	82	74	75
8	13.9	16.5	17.6	18.1	19.8	18.6	21.6	17.1	18.0	95	74	70
9	15.4	11.6	06.0	17.2	18.8	20.0	20.0	15.7	18.0	83	96	97
10	**999.9**	07.7	13.8	14.6	16.8	15.4	18.1	14.1	17.8	98	69	72
11	1017.0	18.4	17.6	14.2	16.8	16.4	18.4	13.7	**17.6**	100	74	73
12	15.9	17.9	18.1	15.8	19.8	18.9	20.9	13.8	17.8	83	80	80
13	19.4	**20.8**	19.4	15.8	20.2	19.8	21.8	15.3	18.0	74	80	63
14	17.9	17.0	14.3	15.8	20.2	19.8	21.8	13.8	18.2	75	67	74
15	10.6	13.4	16.1	20.0	20.8	19.0	23.3	19.0	18.4	96	86	81
16	19.4	18.7	17.6	16.4	21.0	21.8	**24.8**	14.9	18.6	76	82	79
17	14.8	14.3	12.3	18.5	18.3	19.8	21.8	17.5	18.6	94	91	63
18	10.1	11.8	13.0	16.0	23.6	17.0	23.6	15.0	18.3	98	**34**	62
19	15.8	14.5	14.4*	15.7	23.0*	19.0*	23.0	14.2	18.3*	79	59*	72*
20	15.0	13.6	11.6	16.8	21.0	20.0	21.2	14.8	18.3	96	68	75
21	10.1	10.4	09.3	18.8	19.4	19.8	20.3	18.8	18.5	100	100	92
22	08.3	08.8	06.8	20.3	20.8	20.4	21.0	19.3	18.7	98	87	89
23	03.3	05.1	07.9	18.6	18.1	14.9	20.4	14.9	18.6	81	72	76
24	13.0	14.7	14.1	14.5	20.2	17.0	20.2	13.5	19.0	69	43	54
25	11.9	12.6	12.1	17.5	20.6	20.4	21.0	15.5	18.8	70	66	63
26	17.1	18.3	17.1	15.7	19.8	19.9	20.7	**13.2**	19.0	74	67	67
27	15.2	15.6	15.3	18.8	21.8	21.4	23.0	17.8	19.4	95	65	72
28	14.9	14.3	12.3	21.2	23.6	20.8	23.6	20.2	**19.8**	83	72	91
Mean	1013.6	1014.3	1013.7	17.4	20.2	19.3	21.6	16.1	18.4	85	74	74

Wind. Direction and Force D, F			Visibility V	Cloud Amount and Weather N, w			Rainfall R	Course of Weather W
5^h	11^h	17^h	11^h	5^h	11^h	17^h		
SSE 4	SSW 3	W 2	4	9	10	10 = °	-	$\overset{\bullet}{\nabla}$ a, p
SW 1	S 1	ESE 3	8	10 =	8	10	7.2	⊙ p
SSE 1	NE 2	E 1	9	8	5 ⊙	1 ⊙	-	⊙ a, p
ESE 2	E 2	ENE 2	9	7	5 ⊙	3 ⊙	-	⊙ a, p
E 1	SW 1	SW 3	3	10	10 ≡ ,	10 ≡	-	≡ a, p
W 3	W 2	NW 3	2	9	10 ≡ •	10	0.0	≡ • a, • p
3.2	3.2	3.3	6.9	7.3	7.2	7.1	26.3	
WSW 5	WNW 3	WNW 5	8	9	7 ⊙	8 ⊙	8.0	⊙ a, p
W 3	W* 3*	W* 3*	8*	3	3* ⊙	3* ⊙	-	⊙ a, p
ESE 1	NE 2	SE 1	9	2	10	10	-	
SSW 4	SSW 5	SSW 6	7	10 •°	10	10	0.0	
SSE 6	SSE 6	S 6	7	8	10	9	-	
S 6	NNE 4	NW 4	4	9	10 • ≡	5 ⊙	-	• ⊙ p
SW 5	WSW 4	WNW 5	7	5	10	10 •°	4.0	• p
WSW 4	WSW 4	ENE 2	9	9 •	7 ⊙	5 ⊙	1.5	• n, ⊙ a, p
E 3	SE 4	N 6	4	10	10 •	10 •	0.2	• a, p
W 8	WSW 8	W 5	9	10 •	5 ⊙	5 ⊙	51.5	• n, a, ⊙ a, p
WSW 2	WSW 3	WSW 2	8	5	10	10	3 1	
WSW 4	WSW 4	W 3	9	9	7 ⊙	6 ⊙	2.0	⊙ a, p
WSW 2	WSW 2	W 1	9	2	4 ⊙	3 ⊙	-	⊙ a, p
E 1	ESE 2	E 3	9	1	5 ⊙	10	-	⊙ a, p
W 1	W 2	NW 3	7	10 • ≡	8 ≡°	6 ⊙	1.1	≡ • n, • p
E 2	SSW 1	SSW 3	7	6 •	9	7	2.1	• n, a
W 3	W 3	W 5	5	10 •	10 •	4 ⊙	3.0	• n, a, p, ⊙ p
W 6	W 7*	W 6	9	5	4 ⊙	7	0.9	⊙ a, p
W 7	W* 7	W* 7*	7*	1	1* ⊙	1* ⊙	-	⊙ a, p
W 2	W 3	SW 4	8	8	7	10	-	
W 2	WSW 3	W 3	2	10 • ≡	10 • ≡	10 • ≡	2.5	≡ • n, a, p
W 2	W 3	W 2	5	10 • ≡	10 ≡	10 ≡°	19.2	≡ • n, a, •° ≡° p
W 4	W 6	W 6	9	6	3 ⊙	8 ⊙°	16.0	⊙ a, p
SW 2	W 4	W 3	9	8 •	7 ⊙	8	0.2	• n, ⊙ a
WNW 4	WNW 5	NW 3	8	7	8	5 ⊙	-	$\overset{\bullet}{\nabla}$ ⊙ p
E 2	E 3	E 3	8	7	8 ⊙°	7	1.0	⊙° a
SSW 4	NE 3	N 5	7	4	7 ⊙°	8	-	⊙° a
SW 6	SW 5	SW 5	8	7	9	10 •° ≡	-	•° ≡ p
3.6	3.9	3.9	7.4	6.8	7.5	7.3	116.3	

Table 4 (Cont.).

Date	Pressure P			Air Temperature T					Sea Temperature	Relative Humidity U		
	5^h	11^h	17^h	5^h	11^h	17^h	Max.	Min.	11^h	5^h	11^h	17^h
1938												
March 1	1011.7	1016.1	1018.8	18.3	19.8	19.0	22.2	16.8	19.4	78	61	51
2	20.8	20.2	18.8	15.8	21.4	19.5	22.0	13.8	19.5	59	**51**	57
3	18.5	17.0	21.5	18.0	21.4	22.8	22.8	17.5	19.8	74	68	56
4	**22.1**	21.9	20.1	16.0	21.1	20.5	**23.5**	15.5	19.8	81	65	63
5	14.3	12.8	10.1	19.4	20.5	21.0	22.0	17.9	19.6	93	93	89
6	12.1	13.8	13.4	17.6	19.8	18.8	21.0	17.1	19.8	91	83	75
7	10.7	09.1	06.4	20.8	21.1	20.4	21.4	17.3	19.6	88	90	87
8	12.0	15.2	15.7	15.8	19.3	17.8	20.8	14.8	19.4	71	56	59
9	13.0	11.2	08.2	15.3	21.0	19.8	21.0	13.8	**20.0**	62	65	67
10	997.7	997.2	**995.1**	16.1	15.5	14.6	20.6	14.1	19.3	63	68	62
11	1001.1	1004.0	1005.4	12.5	14.2	13.7	14.7	**10.5**	**18.0**	63	60	57
12	05.9	04.8	01.2	17.1	19.1	18.8	19.1	13.1	18.5	69	78	89
13	05.2	08.5	10.0	16.1	18.2	16.5	18.8	15.6	18.3	65	63	70
14	09.3	08.8	09.2	17.1	18.0	18.5	18.5	15.1	**18.0**	74	65	69
15	12.9	14.1	12.4	14.0	18.0	16.0	18.5	12.9	18.3	**51**	54	64
16	08.0	08.6	08.2	16.2	19.4	17.5	20.2	13.1	18.5	78	64	60
17	08.0	07.9	07.9	18.3	20.5	19.5	21.3	16.8	19.0	68	60	77
18	998.5	996.3	999.4	19.5	19.8	15.4	20.9	14.9	18.6	88	85	79
19	1007.3	1009.8	1009.2	13.0	15.1	13.5	18.5	11.5	18.4	58	61	59
20	17.5			9 9						61		

[1] Force of wind 11—12 Beaufort. * Interpolated values. Indices ° and ² indicate

Table 5. *Observations*

Date	December 1937			January 1938			February 1938			March 1938		
	5^h	11^h	17^h	5^h	11^h	17^h	5^h	11^h	17^h	5^h	11^h	17^h
1				52	85	40	55	100	50	65	110	50
2				50	95	40	65			50	115	
3				50	90	35	55	90	60		120	65
4				40	80	30	60	80	70	60	110	75
5				45	70	40	80	75	80	65	100	70
6				60	55	50	85	70	90	90	90	90
7				70	60	65	80	60	95	65	60	90
8				60	50	55	85	50	75	95	55	95
9					35	70	90	60	80	95	60	95
10				80	45	80	80			100	75	100
11				85	55	75		80	55	100	85	80
12				80	70	70	70	90	45	90	95	75
13				60	85	45	35	100	35	90	105	65
14				45	95	20	40	105	30	60	115	55
15				40	100	15	55	110	40	55	105	45
16				30	108	20	60	100	50	60	100	40
17				45	115	50	40	90	70	65	105	50

Wind. Direction and Force D, F			Visibility V	Cloud Amount and Weather N, w			Rainfall R	Course of Weather W
5h	11h	17h	11h	5h	11h	17h		
W 7	W 6	W 6	8	10	5	3 ☉	11.0	●^{2} n, ☉ p
SW 1	NW 2	NE 1	8	9	9	5 ☉	-	☉ p
W 2	W 3	W 3	9	4	5 ☉	4 ☉	-	☉ a, p
SE 1	SE 1	NW 2	8	10	10	10	-	
ESE 1	NW 2	WNW 4	5	10 ● ≡	10 ≡	10 ≡	21.5	● ≡ n, a, p
W 4	WSW 5	WSW 4	7	9 ● ≡	8 ☉	9 ≡	13.5	● ≡ n
W 2	SSW 5	W 6	5	10 ≡$^{\circ}$	10 =	10 =	1.6	= n, a, p, $\overset{\bullet}{\nabla}$ p
W 2	W 2	W 1	8	2	1 ☉	6	4.5	☉ a, p
S 1	W 1	WNW 2	8	9	1 ☉	8	-	☉ a, p
W 3	W 5	WSW 8	8	6	8	10	6.8	☉ a, ● p
W 10	WNW 9	WSW 8	8	4	7	10	7.6	● n^{1}
W 4	WSW 3	NW 5	7	10 ●$^{\circ}$	10	10 ● ≡	1.0	●$^{\circ}$ n, ● p
W 5	W 5	W 5	8	6	8 ☉	10 ●	4.6	● p
W 4	WNW 5	WNW 5	5	10 ●	10 ●$^{\circ}$	10	0.0	● a
WNW 4	WNW 2	WNW 3	6	5	2 ☉	10	1.8	☉ a
WSW 3	WNW 6	NW 5	9	10 =	4 ☉	8	0.1	= n, ☉ p
W 4	W 5	W 4	9	9	8	9	0.8	
W 4	W 4	WSW 5	6	10 =	10 ●$^{\circ}$ =	10 ●$^{\circ}$	0.2	= ●$^{\circ}$ a, p
WNW 4	WNW 5	WNW 4	9	5	6 ☉	8	-	☉ a
SW 1				4				

intensity, $^{\circ}$=weak or light, ^{2}=strong or dense.

on Tides (in cm).

Date	December 1937			January 1938			February 1938			March 1938		
	5h	11h	17h	5h	11h	17h	5h	11h	17h	5h	11h	17h
18				50	100	40	70	75	80	80	115	65
19				55		50	65			70	110	70
20				65	75	65	75	60	90	80		
21	70	75	60	70	65	80	80	55	80			
22	75	60	65	90	65	100	90	50	85			
23	80	45	85	95	60	80	90	60	95			
24	100	62	90	75	55	65	80	65	75			
25		65	92	75	60	60	75	75	65			
26	75	50	65	70	85	70	60	80	60			
27	65	55	60	65	75	55	60					
28	60	80	55	50	75	45			50			
29	65	90	52	50	85	40						
30	45	85	40	45	95	35						
31	50	90	45	50	105	55						
M				60	76	53	68	77	67			

Table 6. *Daily Observations of Temperature at the Settlement. 1938.*

Date	March		April		May		June		July		August		September		October		November		December	
	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h	6^h	18^h
1			19.0	20.0	18.0	17.5	13.5	12.0	10.0	8.0	13.5	13.5	8.5	7.0	13.0	11.0	10.0	13.5	13.0	15.0
2			19.5	17.5	16.5	18.5	14.5	13.0	14.0	7.0	13.0	15.0	5.0	**4.5**	**6.0**	9.0	**8.5**	14.0	16.0	20.0
3			15.0	13.5	13.5	13.0	15,0	11.0	6.5	8.0	15.5	15.0	5.5	6.0	7.0	10.5	13.5	14.5	17.0	20.0
4			12.5	14.5	13.0	15.0	**8.0**	10.0	12.0	11.5	15.0	15.5	5.0	10.0	8.0	11.0	15.0	13.5	17.5	19.0
5			10.5	14.0	15.0	15.5	10.5	11.0	15.0	12.5	14.5	13.5	7.5	8.5	10.5	12.0	11.5	13.0	15.0	19.0
6			13.5	13.0	14.0	14.5	14.0	14.5	11.5	12.5	12.0	13.0	9.5	10.5	12.5	15.0	11.0	14.0	17.0	18.5
7			20.0	22.0	10.0	13.5	14.0	18.0	12.0	12.5	12.5	11.0	13.0	15.5	14.5	15.5	13.5	15.0	19.0	19.0
8			**22.5**	18.5	15.0	14.5	12.0	12.5	9.5	10.0	9.0	**7.0**	10.5	12.5	14.0	13.0	14.0	**18.5**	15.0	19.0
9			19.5	18.5	12.5	10.0	**8.0**	11.0	13.0	14.5	9.5	11.0	11.5	13.5	15.0	13.0	17.0	16.5	19.0	19.0
10			16.0	18.0	13.0	11.0	10.0	9.5	11.0	12.5	12.0	13.5	10.0	12.5	14.5	13.0	16.5	16.0	17.0	16.5
11			16.0	16.0	10.5	11.5	13.5	11.0	13.5	16.0	9.5	9.5	13.0	17.0	10.0	11.0	12.0	11.5	16.0	**21.0**
12			16.5	17.0	10.5	12.5	15.5	13.5	14.0	17.0	10.0	12.5	14.5	15.0	10.5	12.0	9.0	15.0	17.0	15.5
13			20.5	20.0	13.0	14.5	17.5	14.0	8.0	10.5	10.5	**7.0**	14.0	16.0	12.0	12.5	15.0	15.5	12.0	**11.0**
14			19.0	18.0	12.0	12.5	14.5	16.0	10.5	**18.0**	10.0	13.0	15.0	**18.0**	10.5	11.5	12.0	16.0	13.0	16.0
15			14.0	15.0	15.5	16.0	12.5	14.5	13.5	13.0	9.5	11.5	15.5	14.5	9.5	11.0	13.0	15.5	16.5	17.5
16			15.0	17.5	17.5	17.0	11.0	13.5	12.5	15.0	12.0	14.0	10.5	10.0	9.0	12.0	15.0	15.5	15.5	16.0
17			10.5	14.0	**19.5**	17.5	12.0	14.0	15.5	13.5	12.5	10.0	7.5	10.0	12.5	14.5	16.0	13.5	19.0	20.0
18			16.0	10.5	17.5	12.5	13.5	14.0	14.0	13.0	9.5	11.5	10.5	10.0	13.5	14.0	15.0	14.5	14.5	18.0
19			11.0	11.5	10.5	17.0	14.5	15.0	12.0	13.5	10.5	13.0	10.5	5.0	11.0	11.5	15.0	16.0	19.5	19.0
20			15.0	14.5	12.0	16.0	**20.0**	12.5	11.5	13.5	14.0	15.0	10.5	5.5	9.0	12.0	13.5	16.0	18.5	18.0
21			17.5	17.0	12.5	11.5	14.0	13.0	12.0	12.0	15.5	14.5	7.5	5.5	12.5	14.0	14.5	15.0	19.0	19.0
22			17.0	17.5	13.5	16.5	13.0	9.0	14.5	12.5	10.0	10.5	7.0	11.0	14.5	12.0	10.5	11.0	18.5	19.0
23			13.0	12.5	10.5	13.5	9.5	10.5	11.0	10.0	10.0	12.0	15.0	12.0	13.5	15.0	16.0	16.0	16.5	16.0
24			**9.0**	12.0	15.5	15.0	10.0	15.5	9.5	6.5	9.5	12.0	10.0	15.0	13.0	15.5	17.0	17.5	19.0	19.5
25			12.0	14.0	9.5	10.0	9.0	13.5	7.0	7.0	11.5	12.5	10.5	10.5	14.0	15.0	17.0	17.5	18.5	17.5
26			17.5	13.5	**9.0**	10.5	10.0	15.0	**5.0**	8.0	13.5	**17.0**	10.5	7.0	11.5	15.0	15.0	13.5	13.0	14.5
27			17.0	18.5	10.5	15.0	10.5	13.5	9.0	11.0	14.0	12.0	10.0	12.0	14.0	14.5	12.0	12.0	14.0	16.0
28			16.5	13.5	15.5	15.5	10.5	14.0	12.0	7.5	9.5	9.0	11.5	8.0	10.5	10.0	11.5	15.0	13.5	18.0
29	16	17.5	13.5	13.0	12.5	13.5	17.0	**20.0**	14.0	10.0	7.5	10.0	7.0	**9.5**	9.0	14.0	16.5	15.5	18.5	18.0
30	15	12	20.0	17.0	11.5	14.0	15.0	12.0	10.5	13.0	14.0	10.0	11.5	13.5	**16.5**	13.5	12.5	15.0	17.5	20.0
31	17	21			11.5	13.0			9.0	12.0	7.5	9.0			10.0	10.5			18.0	17.5
Mean			15.8	15.7	13.3	14.1	12.8	13.2	11.4	11.7	11.5	12.0	10.3	10.9	11.7	12.7	13.6	14.8	16.5	17.8
			15.8		13.7		13.0		11.6		11.8		10.6		12.2		14.2		17.2	

Table 7. *Daily Observations of Rainfall at the Settlement. 1938.*

Date	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2	10	22	5	-	14	-	-	-
2	2	26	18	16	2	17	-	-	-
3	6	6	10	3	4	9	2	-	-
4	-	-	2	9	7	-	-	6	-
5	-	1.5	-	6	18	1	-	-	-
6	-	2	-	3	2	2	-	-	-
7	-	-	-	-	-	9	-	-	8
8	17	20 5	3	-	12	-	1	-	-
9	-	7	-	-	4	1	8	2	-
10	-	34	-	-	3	-	2	24	-
11	-	26	-	-	1	-	1	4	-
12	2	3	9	1	2	11	-	10	-
13	10	7	12	9	8	-	4	-	-
14	3	4	1	5	-	2	-	-	-
15	2	-	2	6	5	16	-	-	-
16	1	18	4	3	-	19	-	7	-
17	-	3	-	-	11	-	6	-	-
18	1	-	-	8	8	-	5	-	-
19	-	3	2	2	1	2	-	-	-
20	-	10	7	3	6	-	-	-	32
21	29	60	3	6	18	4	-	-	10
22	34	6.5	9	14	7	8	4	-	12
23	17.5	6	-	6	1	1	-	7	6
24	-	40	-	152	-	-	4	-	2
25	-	12	-	4	4	24	7	2	-
26	1	-	-	1	2	20	-	41	-
27	33	2	-	4	5	8	-	5	3
28	10	20	-	5	2	2	-	-	10
29	-	5	37	3	7	-	-	4	9
30	3	5	4	-	21	-	8	-	-
31		2		-	3		-		6
Total	173.5	339.5	145	274	164	170	52	112	98

Table 8. *Temperature and Rainfall at Camp above Burntwood, 650 m s. m. 1938.*

January	Temperature °C				Rainfall mm
	$5—5^{30h}$	11^{h}	$17—17^{30h}$	Min.	
5			15.5		
6	13.5		14.5	11	
7	15	15.5		12.5	2.3
8	13.5	15.5	15.5	11	9.5
9	14	15 5	15	12	1.0
10	15		15.5	14	8.0
11	14.5 (7 h)	15.5	15	13.5	6.2
12	14.5	15.5	15	14	4.9
13	15	15.5	15.5	13.5	8.3
14	15	17.5	16	14	7.1
15	15.5	16 (12 h)		13	4.4
16					10.2
17					
18			6 (18^{15} h)		
19	5.5	13		5	0.7
20	7.5		10	3.5	0.0
21	11			6.5	0.0
Mean	13.5 (5 h + 17 h)			11.0	
Total					62.6

Table 9. *Air Temperature and Sea Temperature at Nightingale Island. 1938.*

February	Temperature °C				Sea Temperature °C
	$5—5^{30h}$	$11—12^{h}$	$17—17^{30h}$	Min.	
2					18.0
3		26.5		13	18.5
4				16	18.0
5	19	24.5		18.5	18.0
6	18.5		17.5 (20 h)	18	18.0
7	17.5		18.5 (18^{30} h)	16	18.1
8	16	20		15	18.2
9	17.5		20	13	18.5
10	15 (7 h)	18.5		12.5	18.5
11	14.5		15.5 (20 h)	13	18.0
12	15.5	22	17.5	13	19.0
13	15.5	22		14	
Mean	16.75	22.25		14.7	
Mean at Settlement ...	17.67	19.7			

Table 10. *Air Temperature and Sea Temperature at Inaccessible Island. 1938.*

February—March	Temperature °C				Sea Temperature °C
	5—5$^{30\text{h}}$	11—12$^{\text{h}}$	17$^{\text{h}}$	Min.	
15			16 (19 h)		
16	14.5	21.5	20	13	
17	16	21	20.5	15	19.0
18	16	20.5		14.5	
19	15	22	18.5	14	18.0
20	16.5	24.5	19.5	16	18.5
21	18.5	19.5	19.5 (21 h)	18.5	18.7
22	19.5	22	19 (21 h)	19	19.2
23	16.5	17.5	15	16.5	18.8
24	11	19		11	18.4
25					18.7
26			19 (19 h)		18.7
27	18	24.5	22.5	17.5	19.0
28	19.5	23	21.5	19.5	19.1
1	17	21	18	16	19.5
2	15	24.5	19.5	11 5	19.2
3	17	22.5 (14 h)	16 (21 h)	16	
4	16 5	23	18.5 (21 h)	13.5	
5	18.5	20	20	17.5	
6	16.5	20.5		16.5	

Table 11. *Rainfall on the Base above the Settlement (650 m s. m.) and in The Peak Crater (1920—1950 m s. m.). 1938.*

Date	Rainfall, mm		Date	Rainfall, mm	
	Base	Peak		Base	Peak
Jan. 6— 8....		5	Oct. 2	27	56
» 28....		45	» 9	24	53
Febr. 5....	21	50	» 16	15	20
» 12....	69	207	» 23	32	70
» 19....	24.5	114	» 30	46	87
» 26....	56	199	Nov. 6	15	28
March 15....	112	221[1]	» 13	61	115
» 23....	13	46	» 20	17	31
April 3....	40	94	» 27	93	160
» 10....	32	81	Dec. 3	11	26
» 17....	39	92	» 11	19	38
» 24....	143	206	» 25	94	201
May 1....	64	108	» 31	47	93
» 8....	56	97			
» 15....	overfl.[2]	overfl.[2]			
» 22....	overfl.[2]	overfl.[2]			

[1] Including uppermost edge of rain gauge. [2] $\geqq 220$ mm.

Table 12. *Rainfall and Sunshine Records.* (After Barrow).

	Rainfall	Sun, all day	Sun, part of the day	Sun unrecorded
	mm	days	days	days
1907 June 4—30..	127	5	19	0
July	245	4	18	3
August	204	4	21	0
September ..	190	7	11	1
October.....	195	9	13	0
November...	153	11	14	1
December ..	76	4	1	24
	1190			
1908 January.....	116	11	12	0
February....	155	10	12	0
March	111	7	17	2
April	193	14	8	1
May	109	9	21	0
June	147	0	25	0
July	122	5	21	0
August	161	8	18	0
September...	168	3	21	0
October.....	170	11	9	0
November...	62	11	8	0
December ..	133	10	10	0
	1647			
1909 January.....	78	7	19	0
February....	120	11	7	3
March	135	9	14	1

Table 13. *Weather and Direction of Wind at the Settlement. 1923 and 1924.*

(Observations by R. F. Glass).

Direction	Fine		Cloudy		Overcast		Foggy		Rainy		Total Days
	No. of days	%	No. of days	%	No. of days	%	No. of days	%	No. of days	%	
NE	9	15.5	3	5.2	14	24.1	12	20.7	20	34.5	58
E	5	29.4	4	23.5	4	23.5	0	0	4	23.5	17
SE.........	8	23.5	14	41.2	3	8.8	0	0	9	26.5	34
S..........	25	55.6	13	28.9	1	2.2	1	2.2	5	11.1	45
SW	60	43.5	48	34 8	12	8.7	2	1.4	16	11.6	138
W	38	27.7	60	43.8	21	15.3	4	2.9	14	10.2	137
NW........	25	11.2	45	20.1	82[1]	36.6	10	4.5	62	27.7	224
N	5	6.5	9	11.7	32	41.5	9	11.7	22	28.6	77
Calm							1	100.0			1
Total.......	175	23.9	196	26.8	169	23.1	39	5.3	152[2]	20.8	731

[1] 1 day recorded as "fresh breeze". [2] 34 days also recorded as foggy.

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RESULTS OF THE NORWEGIAN SCIENTIFIC EXPEDITION TO TRISTAN DA CUNHA 1937—1938. No. 11.

NEW PHANEROGAMS FROM TRISTAN DA CUNHA

BY

ERLING CHRISTOPHERSEN

The present paper contains some of the new species, varieties, and forms of phanerogams collected by the Norwegian Scientific Expedition to Tristan da Cunha. A complete report on the collection will appear after the war when materials for comparison are again available.

Carex Thouarsii Carm. var. **recurvata** var. nov. — Fig. 1.

Differt a *C. Thouarsii* partibus omnibus sterilibus minoribus, foliis basalibus rigidis recurvatis, squamis ♀ ovalibus vel obovatis haud 3 mm longis (aristis exclusis), aristis ♀ et ♂ utriculisque minoribus.

Plants to 15 cm high with a straight, rigid culm; basal leaves densely crowded, recurved, shorter than the culm, leaves on culm recurved, rarely equal to or exceeding the spikes. Spikes 3—5, usually 4, crowded or the lowermost one distant, the terminal one staminate, club-shaped, 10—15 mm long, the lateral ones pistillate, sessile or shortly pedunculate, ovate-oblong, to 14 mm long, on an average shorter than the staminate spikes. Foliaceous bracts coriaceous, lower ones longer than spikes. Staminate scales narrowly obovate, bifid at apex, 3-veined, 4.0—4.8 mm long (excluding awn), 2.1—2.7 mm broad, the middle vein running out into a 0.5—1.2 mm long, scabrous awn. Pistillate scales oval or obovate, bifid at apex, 3-veined, 2.4—2.8 mm long (excluding awn), 1.7—2.2 mm broad, the middle vein running out into a 0.4—1.6 mm long, scabrous awn. Perigynia broadly bottle-shaped, flattened, 2 strongly prominent lateral veins on each face, 3.5—4.0 mm long, abruptly tapering into an elongate, slightly scabrous, deeply 2-cleft beak. Nut trigonous, obovoid. Stigmata 3.

TRISTAN DA CUNHA: Soggy Plain, alt. 800 m, in *Scirpus* bog, fr, Jan. 11, no. 1022 (type); Stony Beach, alt. 5 m, grass field, fr, Feb. 4, no. 1414; above Soggy Plain, alt. 11—1200 m, among mosses, fr, Feb. 19, no. 1542.

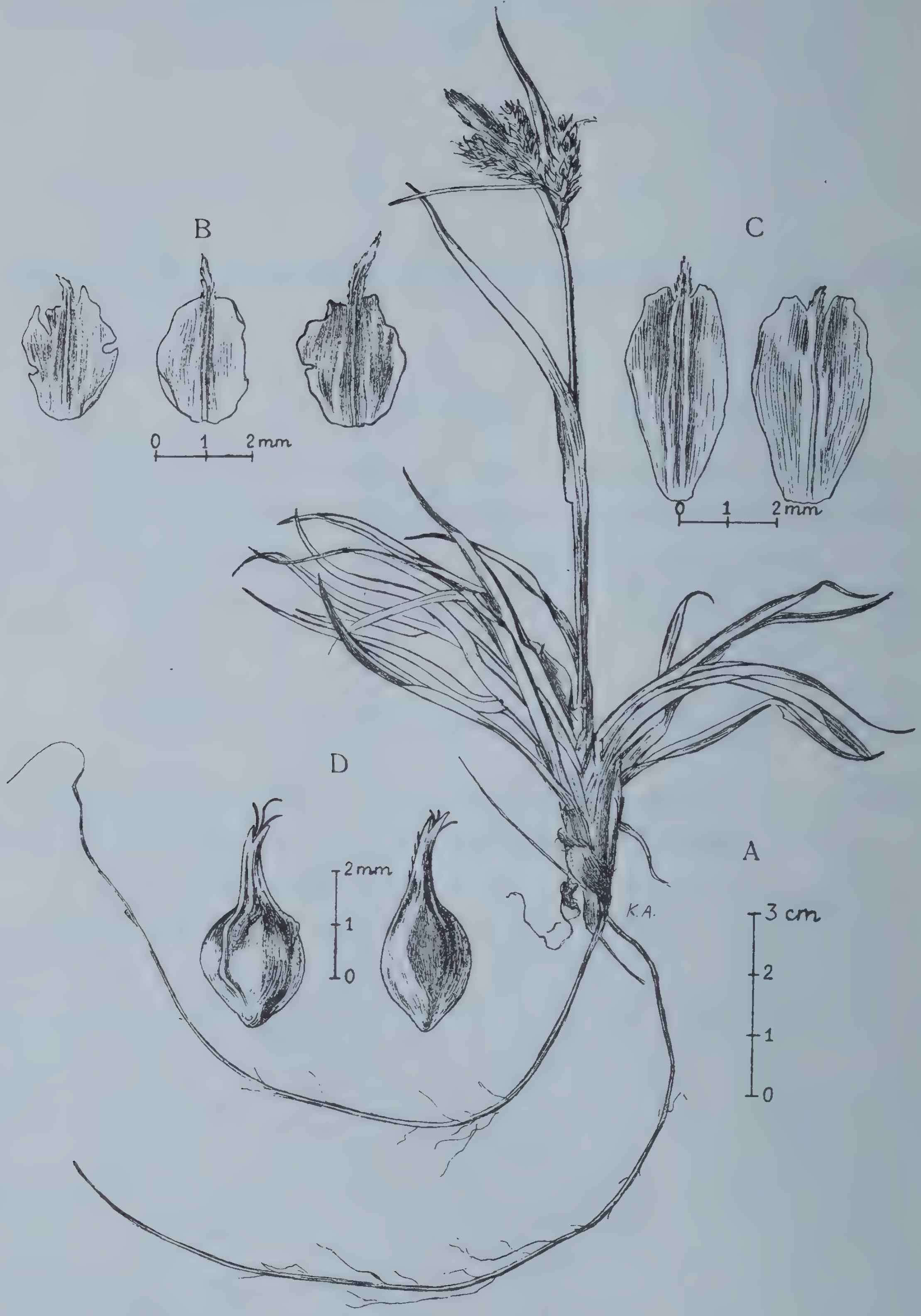

Fig. 1. *Carex Thouarsii* var. *recurvata*.
A fruiting specimen; B scales of female spike; C scales of male spike;
D fruits. Type specimen. Kirsten Arneberg del.

This variety differs from the type of *C. Thouarsii* in the smaller size of all vegetative parts, the stiff, recurved basal leaves, the oval or obovate pistillate scales, which are less than 3 mm long (excluding awn), those of the type being oval or ovate, relatively narrower, and more than 3 mm long, in the shorter awns of both pistillate and staminate scales, and in the smaller perigynia to 4 mm long, those of the type being more than 4 mm long.

	Pistillate scales						Staminate scales						Perigynia		
	Length mm			Awn mm			Length mm			Awn mm			Length mm		
	max.	min.	med.	max.	min.	med.	max.	min.	med.	max.	min.	med.	max.	min.	med.
C. Thouarsii (No. 451).......	3.4	3.3	3.3	2.4	1.0	1.5	4.9	4.4	4.7	2.7	1.0	1.7	4.4	4.2	4.3
C. Thouarsii var. recurvata (No. 1022)......	2.8	2.4	2.6	1.6	0.4	0.9	4.8	4.0	4.5	1.2	0.5	0.8	4.0	3.5	3.8

C. Thouarsii var. *recurvata* grows in the southern part of the main island, where it was found at medium and high altitudes in boggy and other wet localities. A few specimens were also found near the shore at Stony Beach, probably carried down by streams.

Rostkovia tristanensis sp. nov. — Figs. 2 and 3.

Herba glabra ad 16 cm alta, caule rigido erecto. Folia incurva vel circinnata caule plerumque breviora, laminis canaliculatis acutis superioribus 3—5 cm longis. Flos terminalis circiter 1 cm longus. Prophyllum inferum foliaceum florem superans, superum florem subaequans. Tepala lanceolata, exteriora 9—10 mm longa unguiculata, interiora 8—9 mm longa. Stamina tepalis interioribus breviora, antheris linearibus unguiculatis filamentis brevioribus. Stylus ad 2 mm longus. Fructus obovoideus trigonus unilocularis polyspermus circiter 5 mm longus. Semina anguste ovoidea vel obovoidea 1.0—1.2 mm longa.

Plant glabrous to 16 cm high, single-stemmed or with lateral shoots. Stem rigid, straight, erect, terete. Leaves from the base of the stem, distinctly incurved or circinnate, usually shorter than the stem, sheaths open with rounded ears, the lowermost ones bladeless, blades coriaceous, strap-shaped, canaliculate, becoming plane towards the apex, with two densely spaced prominent veins on the dorsal surface, gradually tapering to an acute apex, the uppermost ones 3—5 cm long. Flower terminal, solitary, ca. 1 cm long. Lower prophyllum leaf-like, exceeding the flower in length (to 25 mm), upper prophyllum lanceolate, acute, shorter than or equalling the outer tepals in length. Outer tepals 3, chestnut brown with straw-coloured margins, lanceolate, hooded, 9—10 mm long, inner tepals 3, coloured as the outer tepals, lanceolate, acute, 8—9 mm long.

Stamens 6, shorter than the inner tepals, anthers linear, shorter than the filaments, with a claw-like appendage at the apex. Style to 2 mm long, stigma 3-parted, spirally curved. Ovary obovoid, trigonous in cross-section, one-celled, many-seeded. Mature capsule about 5 mm long, obovoid, trigonous, greyish brown, lucid. Seeds narrowly ovoid or obovoid, brown, lucid, longitudinally striped, 1.0—1.2 mm long.

TRISTAN DA CUNHA: above Soggy Plain, alt. 11—1200 m, in *Empetrum* heath, late fl, fr, Feb. 19, no. 1516.

R. tristanensis is closely related to *R. magellanica* (Lam.) Hook. f., but differs distinctly in its incurved to circinnate leaves, relatively shorter anthers, and shorter style. It was collected only once, and is apparently a rare plant at high altitudes.

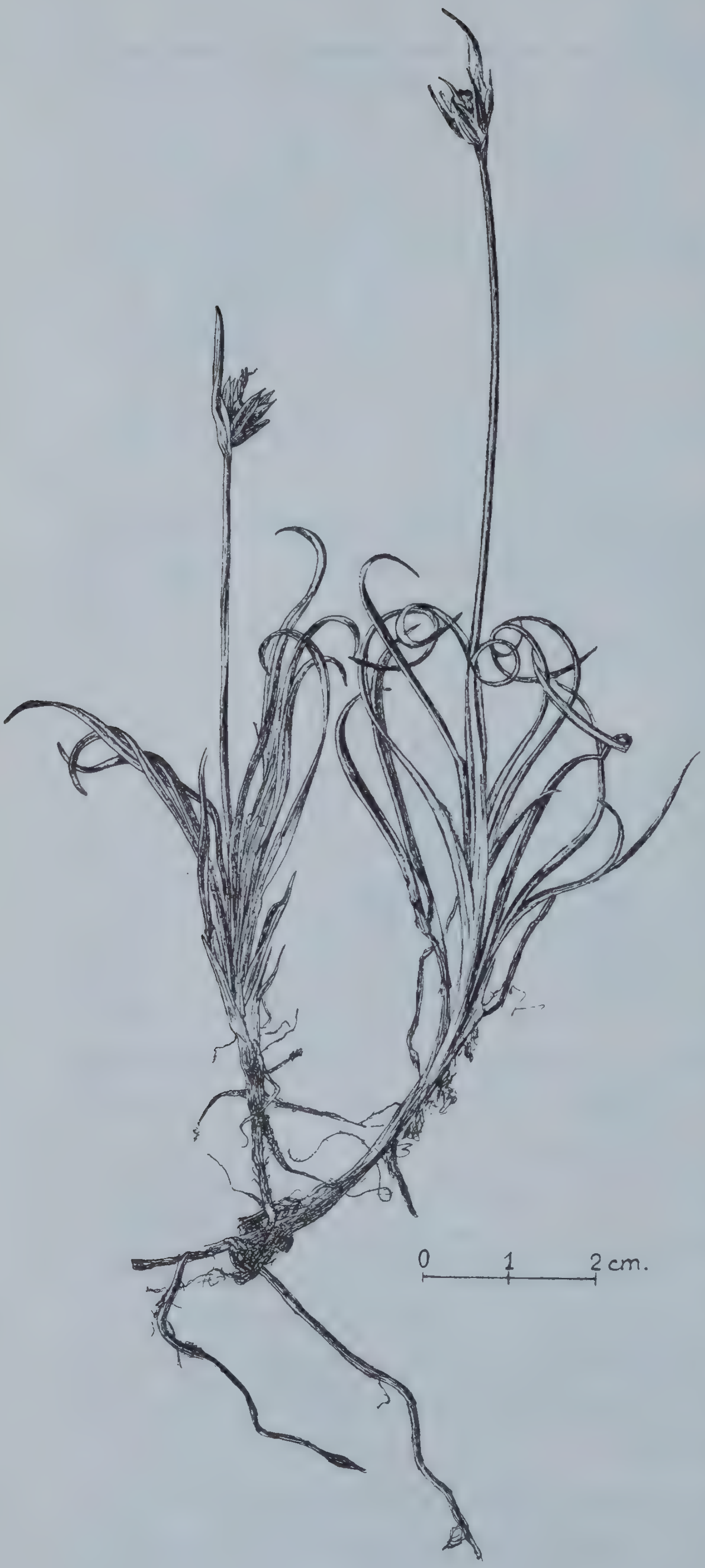

Fig. 2.
Rostkovia tristanensis. Type specimen.
Kirsten Arneberg del.

The occurrence of this endemic species in Tristan da Cunha is of great phytogeographical interest. *R. tristanensis* has apparently no special adaptations for long distance transport, except possibly by sea, which would most probably not have resulted in its present high altitude distribution. Being closely related to, although specifically distinct from *R. magellanica*, which occurs abundantly in the

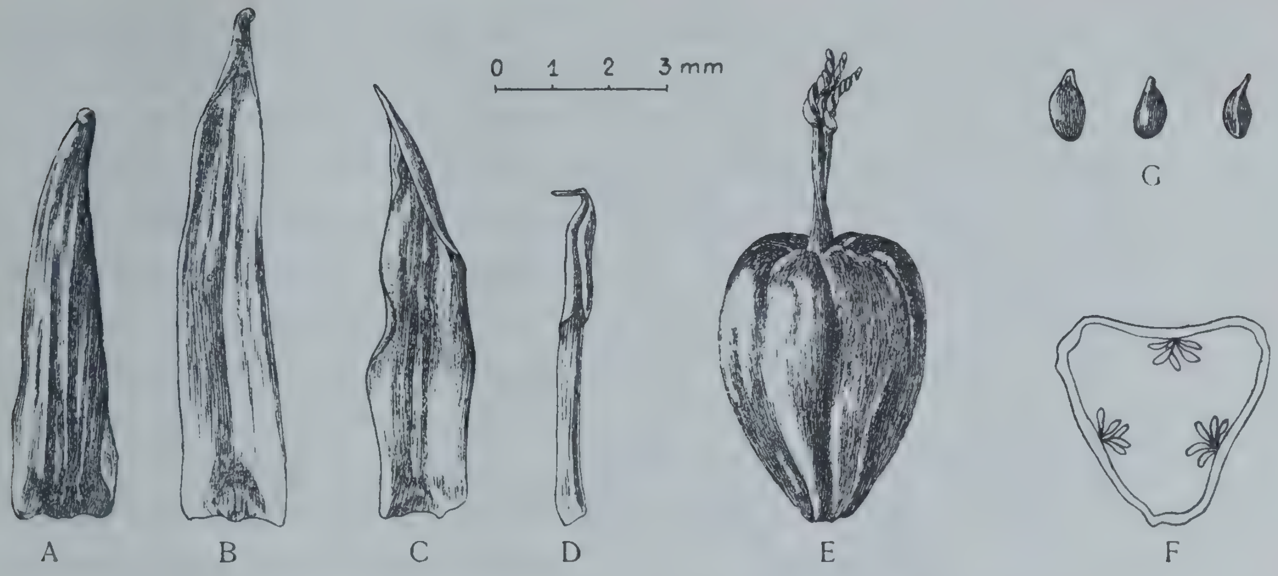

Fig. 3. *Rostkovia tristanensis.* A upper prophyllum; B outer tepal; C inner tepal; D stamen; E mature capsule; F cross-section of capsule; G seeds. Kirsten Arneberg del.

Falkland Islands and extends to S. America and New Zealand, its occurrence in Tristan da Cunha is an indication of a previously closer connection with these regions.

Peperomia tristanensis sp. nov. — Fig. 4.

Herba perennis. Caules teretes ab rhizomate tuberoso ascendentes ad 52 cm longi 13 mm crassi (in vivo). Folia verticillata sessilia vel breviter petiolata 5.5—8.5 cm longa 2—3.5 cm lata utrinque lucida supra glabra subtus in venis ferrugineo-hirtella obovata vel oblanceolata acuta vel late acuminata, apice obtuso, basi attenuata, venis primariis 5—7. Amenta axillaria solitaria vel plerumque paniculata in vivo ad 35 mm longa 2.5 mm lata in sicco ad 30 mm longa 1.5 mm lata, pedunculis ad 8 mm longis, bracteis ovalibus 8—25 mm longis. Bracteae floriferae rotundatae peltatae circiter 0.6 mm diam. Antherae subsessiles circiter 0.4 mm longae. Ovarium sessile, stigmate apicali penicellato. Fructus immaturus obovoideus minute verrucosus 0.6 mm altus ad 0.5 mm latus, apice appendice parva pulvinata instructa.

Perennial herb. Stems from a thick, head-like, partly epigeous rootstock, glabrous, simple, terete, ascending or erect, to 52 cm long and 13 mm broad (in living state). Leaves in the upper part of the branches, verticillate, 3 in each whorl, sessile or shortly petiolate, fleshy, chartaceous when dry, obovate or oblanceolate, acute or broadly acuminate with blunt apex, attenuate at base, 5—7-veined, 5.5—8.5 cm long, 2—3.5 cm broad, shining on both surfaces, dark green and glabrous above with impressed veins, pale green and rusty hirtellous below on

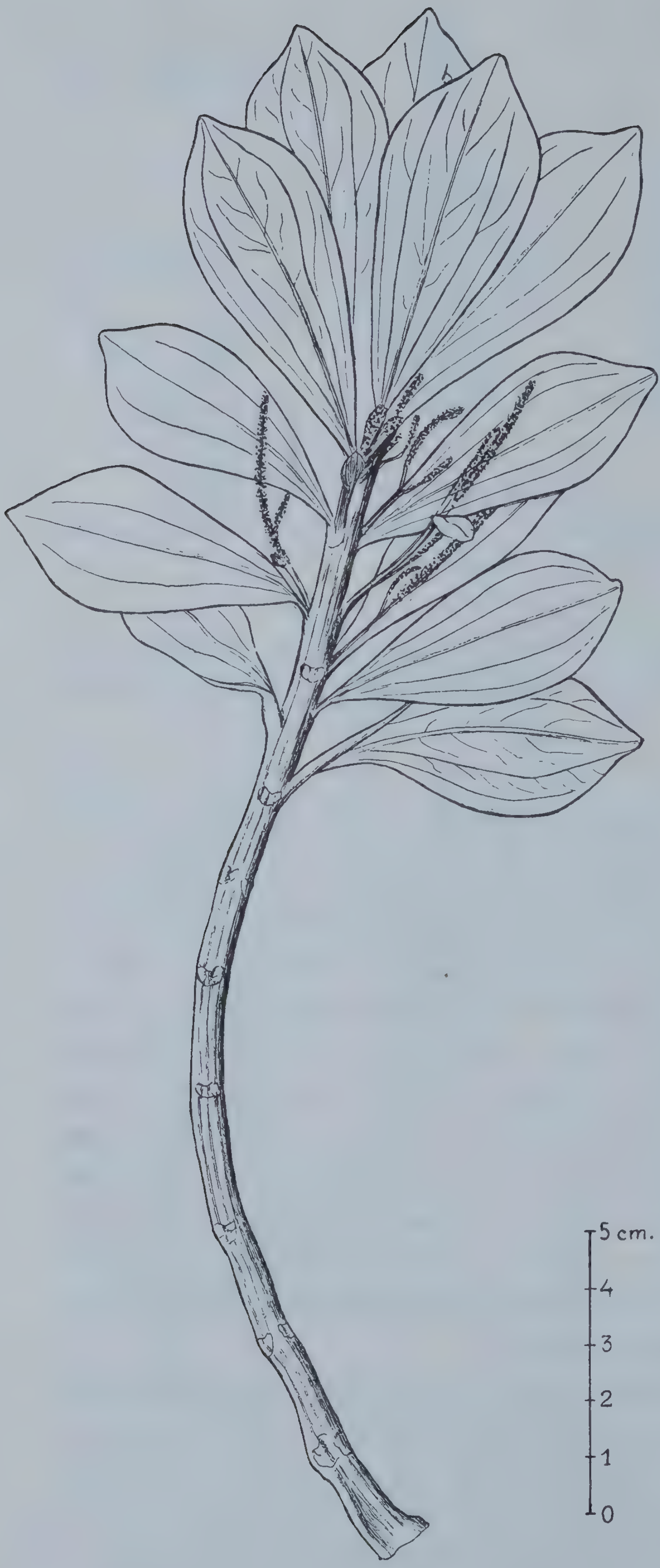

Fig. 4.
Peperomia tristanensis. Type specimen.
Kirsten Arneberg del.

the prominent veins, primary veins 5—7, not or slightly connivent in lower part. Spikes axillary, solitary, or usually in panicles, in living state to 35 mm long and 2.5 mm broad, dried to 30 mm long and 1.5 mm broad, open-flowered in lower part, peduncles to 8 mm long, partly subtended by oval bracts 8 to 25 mm long. Flowering bracts rotundate, peltate, about 0.6 mm in diameter. Anthers subsessile, oblong, about 0.4 mm long. Ovary sessile, crowned by a tufted stigma. Immature fruit obovoid, minutely verrucose, 0.6 mm high and to 0.5 mm broad, crowned by a small, pulvinate appendix.

INACCESSIBLE: without locality, Sept. 1937, nos. 462 and 502 (by inhabitants); above Salt Beach, by waterfall, Jan. 21, no. 1278 (by George Glass); above waterfall at Salt Beach, alt. 150 m, at brook, fl, y. fr, March 2, no. 2592 (type).

The structure of the mature fruit is the most important distinguishing character in the genus *Peperomia*, and as our specimens unfortunately show flowers and immature fruits only it is hardly possible to state with certainty to which subgenus they belong. However, the relatively small, pulvinate appendix observed indicates that they may be referred to *Tildenia* Miq. (emend. Dahlst.). They are distinguished among the great majority of Peperomias by their paniculate inflorescence, and I have not been able to match them with any of the species in the key of de Candolle (1923).

No species of *Peperomia* have previously been reported from Tristan da Cunha, and *P. tristanensis* is an exceedingly rare plant in the islands, being known only from the valley leading up from Salt Beach in Inaccessible Island. It is well known by the inhabitants, and being a relatively large plant easily distinguished by its dark green, lustrous foliage it is probably not to be found in a great many other places. It is very succulent, specimens gathered in September by one of the inhabitants being alive late in December after having been kept without water for all that time.

Acaena Stangii sp. nov. — Fig. 5.

Frutex repens, caulibus hirsutis. Folia 9—13-foliolata griseo-viridia ad 4 cm longa cum vagina plerumque ca. 2.5 cm longa, vaginis stipulisque superficie glabrescente, margine piloso. Foliola sessilia supra glabra subtus in costa hirsuta, margine hirsuto, superiora late ovalia vel obovata 4—5 mm longa 3.5—4.5 mm lata, utrinque dentibus 4—6. Scapus hirsutus plusminus 7.2 cm (ad 10 cm) longus. Capitulum globosum 9—10 mm diam., bracteis bracteolisque linearibus margine hirsuto. Sepala 4 rarius 5 persistentia elliptica griseo-viridia ca. 1.5 mm longa 0.7—0.9 mm lata extus sparse hirsuta intus glabra, basi connata, apice obtuso vel rotundato. Stamina 2, filamentis glabris ad 1.8 mm longis, antheris reniformibus 0.35 mm altis 0.5 mm latis in vivo purpureis. Stylus staminibus longitudine par, stigmate plumoso arcuato 0.7—0.8 mm longo. Cupula submatura fere obconica saccata alata glabrescens fere 2 mm longa, aculeis 4 apicalibus interdum 1—2 inferioribus eglochidiatis ad 2 mm longis. Achenium unum ellipsoideum.

Cupula matura (ex exemplario 2360) obconica anguste alata vel costata glabrescens vel glabra 2.2 mm longa, aculeis 4 apicalibus ad 1.5 mm longis eglochidiatis vel 1—3 glochidiis apicalibus instructis. Achenium anguste ovoideum 1.8 mm longum 0.9 mm latum.

Plant trailing with ascending flowering shoots. Epigeous part of stem hirsute, greyish green in upper part, becoming light reddish brown below, subterranean part glabrescent, reddish brown. Leaves greyish green, to 4 cm long including sheath, mostly about 2.5 cm long, 9—13-foliolate; sheaths 5—10 mm long, terminated by 3—5 mm long stipules with 2—4 narrow teeth, sheaths and stipules with glabrescent surface and pilose margin; leaflets sessile, glabrous above, hirsute in margin and on midrib below, the lowermost ones smaller, entire to 4-toothed,

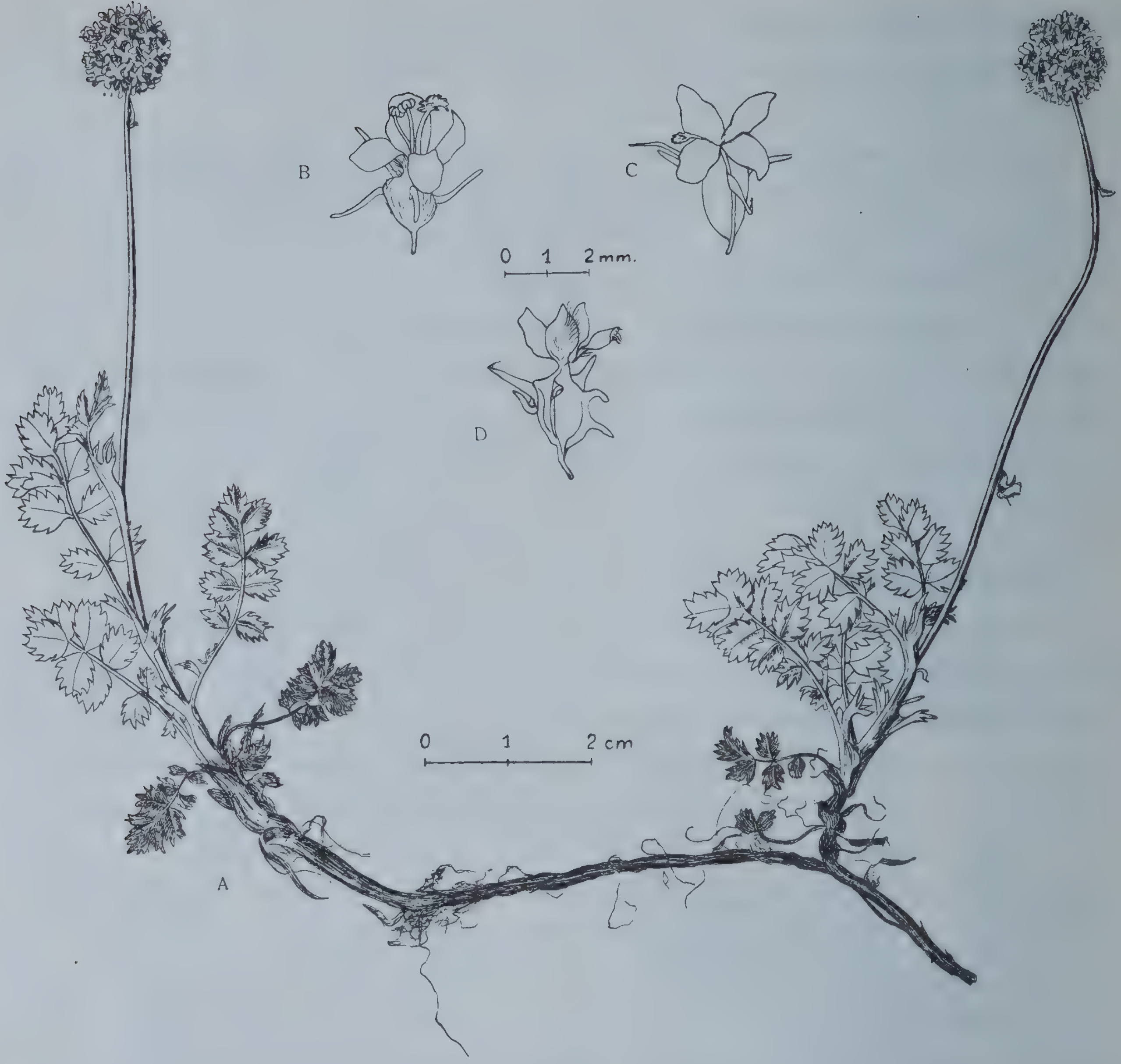

Fig. 5. *Acaena Stangii.* A flowering specimen; B flower; C and D mature cupules. A and B from type specimen, C and D from specimen no. 2360. Kirsten Arneberg del.

usually close to stipules, the upper ones broadly oval to obovate, 4—5 mm long, 3.5—4.5 mm broad, 4—6 teeth on each side, terminal leaflet shortly petiolate, of about the same size as those of the uppermost pair or slightly smaller. Scape hirsute, greyish green or slightly brownish in parts, to 10 cm long, on an average 7.2 cm long, with 1—3 reduced leaves. Flowering head globose, 9—10 mm in diameter; bracts and bracteoles linear with hirsute margin, persistent, the former 4—6 mm long, the latter 2—3 mm long. Sepals 4, rarely 5, elliptic, obtuse or rounded at apex, greyish green, sparsely hirsute on outer surface, more densely so at the apex, glabrous on inner surface, about 1.5 mm long (from base of calyx), 0.7—0.9 mm broad, distinctly united at base. Stamens 2, glabrous filaments to 1.8 mm long, anthers reniform, 0.35 mm high and 0.5 mm broad, purple in living state. Style reaching about the same height as the stamens, stigma plumose, curved, 0.7—0.8 mm long. Submature cupule shortly stipitate (about 0.5 mm), more or less obconical, saccate, winged, glabrescent, less than 2 mm long, spines 4 in the uppermost part of the cupule, eglochidiate, to 2 mm long. Achene ellipsoid, solitary.

Mature cupules (from specimen no. 2360) obconical, gradually tapering into a stipe, narrowly winged or merely ribbed, glabrescent or glabrous, brown coloured, 2.2 mm long, spines 4 in the uppermost part of the cupule, rarely additional spines lower down, to 1.5 mm long, eglochidiate or with 1—3 glochids at the apex. Achene narrowly ovoid, 1.8 mm long, 0.9 mm broad.

To judge by the other collection numbers *A. Stangii* varies within rather narrow limits. The leaves are in some specimens bluish green, but are in all numbers of about the same size as those of the type, except in specimen no. 1271 with somewhat longer leaves and leaflets to 9 mm long. In some specimens the stamens are longer than the style. The most outstanding variation is exhibited in the spines of the cupule, which are mostly glochidiate in specimens nos. 46 and 814, some of the spines being glochidiate in specimens nos. 1271 and 2360. The glochids are apical, 1—3 in number.

I take great pleasure in dedicating this species to my friend Professor Christian S. Stang, a great lover of plants and one of the supporters of the expedition.

TRISTAN DA CUNHA: above Settlement, alt. 650 m, naked soil, fl, Dec. 21, no. 46; above Burntwood, alt. 1200 m, y. fl, Jan. 6, no. 632; above Burntwood, alt. 650 m, meadow in gully, fl, y. fr, Jan. 10, no. 814; above Burntwood, alt. 1200 m, in *Empetrum* heath, fl, y. fr, Jan. 8, no. 831 (type); Upper Pond crater, alt. 600 m, wet meadow, fl, y. fr, Jan. 19, no. 1271.

INACCESSIBLE: above Blenden Hall, alt. 450 m, meadow on steep slopes, fr, Feb. 19, no. 2360; same locality, March 2, no. 2581.

As far as I can judge this species comes close to *A. sarmentosa*. Its 4 main spines and solitary achene places it in section *Ancistrum* in the system of Bitter (1911), and its reniform anthers and occasionally appearing additional spines *below* the main ones (observed in specimen no. 2360) brings it to the group centering around *A. sanguisorbae* Vahl. In its additional spines and saccate cupule it differs from the species of the South American group *Ovalifoliae* (belonging to the same subsection, *Euancistrum*, in the system of Bitter). It differs distinctly from *A. sarmentosa* in its smaller, less pubescent leaves, and in its glabrescent cupules with much shorter and less glochidiate spines. *A. sarmentosa* grows in the lowlands and at middle altitudes, *A. Stangii* being found at middle and high altitudes only.

From *A. insularis* Citerne (New Amsterdam) it differs in its much shorter leaves, stipules, and leaflets, the latter not densely sericeo-pilose on the veins below, in its twice as long filaments, glabrescent, not densely pilose submature cupule, and in its fewer (or absent) glochids.

In the phytogeographical discussion of Tristan da Cunha *A. Stangii*, as well as *A. sarmentosa*, are going to play an important part. They seem to be excluded from all the South American groups of the genus, being most closely related to the polymorphous species *A. sanguisorbae* Vahl of Australia, Tasmania, and New Zealand. In this group is also included *A. insularis* Citerne from New Amsterdam, and possibly also South African plants (Bitter 1911, p. 276). This eastward relationship of the Tristan species is very interesting in view of the fact that the overwhelming part of the phanerogams show westward relationships.

Empetrum rubrum Vahl var. **tristanitorum** var. nov. — Fig. 6.

Differt a typo habito prostrato, ramis subglabris, drupis magnis roseis translucidis.

Prostrate shrub with slightly pubescent branches. Leaves 4—6 mm long, narrowly elliptic, lanceolate or oblanceolate, rarely truly elongate with parallel edges, only the youngest ones pubescent, margin with sessile glands, petioles 0.5—1 mm long. Flowers unisexual. Drupes large, to 12 mm high and 10 mm wide, pink to light wine-red in colour, translucent, sweet to the taste.

TRISTAN DA CUNHA: interior of Peak crater, alt. 1950 m, cinder slopes, ♀, Jan. 6, nos. 628 and 629; Hottentot Gulch, alt. 1000 m, heath, ♀, Jan. 28, no. 1359; above Settlement, alt. 1200 m, heath, ♀, fr, March 15, no. 1745 (type); E side of Peak, alt. 1860 m, gravel plateau, March 23, no. 1779.

This variety is immediately distinguished from the ordinary type of *E. rubrum* in Tristan by its prostrate, matted habit, the shape of its leaves, and especially by its large, light red, shining and translucent drupes, which are sweet to the taste, the drupes of the ordinary type being sour and smaller. *E. rubrum* subsp. *Eamesii* (Fern. & Wieg.) R. Good (also referred to *E. nigrum*) has pale red, translucent drupes, but is clearly distinct from var. *tristanitorum* in its densely pubescent branches, smaller leaves, and smaller drupes. The suggestion of Good (1927, p. 516) that subsp. *Eamesii* may be represented in the Southern Hemisphere (Juan Fernandez and Fuegia) is therefore not further substantiated by the discovery of var. *tristanitorum*. I have also seen a specimen of the Juan Fernandez plant (Skottsberg no. 379, herb. Oslo)

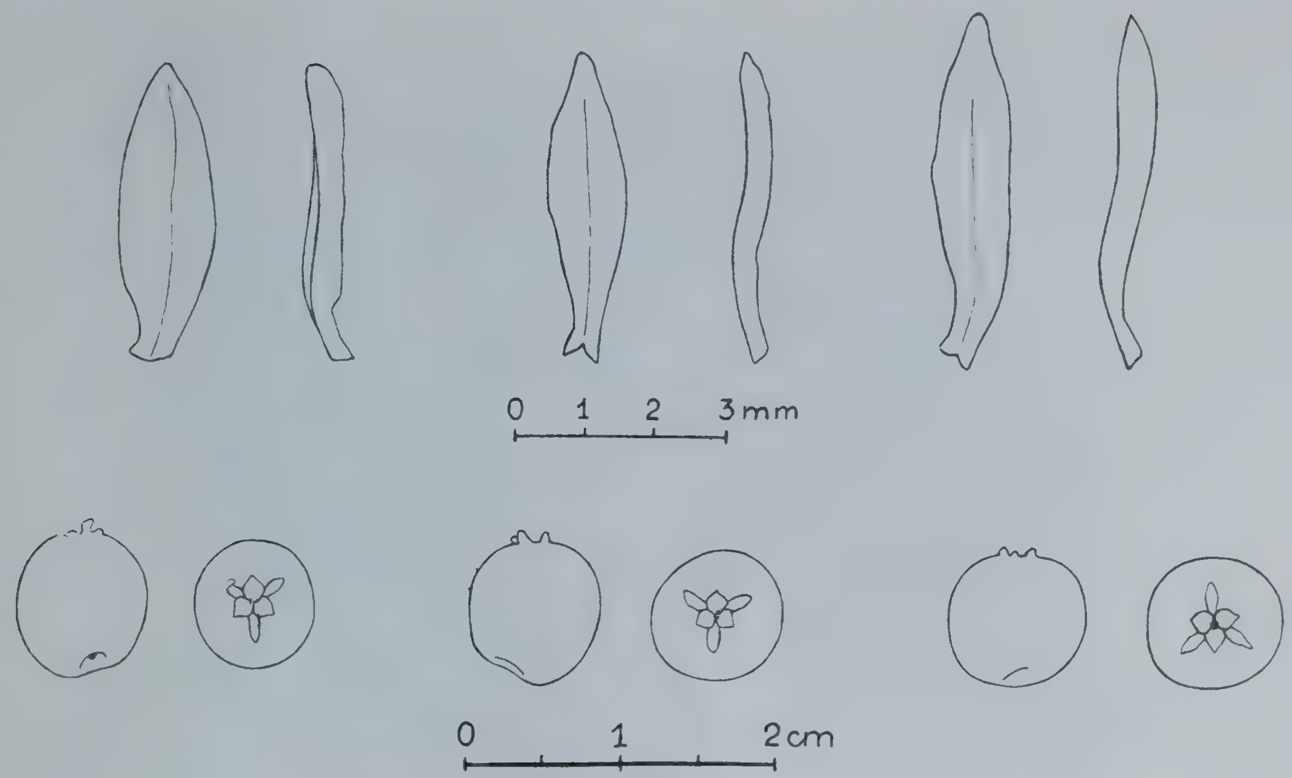

Fig. 6. *Empetrum rubrum* var. *tristanitorum*. Leaves, upper and side view; drupes, side and top view. Type specimen.
Kirsten Arneberg del.

which differs from var. *tristanitorum* in its shrubby habit, smaller leaves, and densely pubescent branches.

It grows only at high altitudes, from about 1000 m up to the main peak, forming extensive areas of *Racomitrium—Empetrum* heath. The fruits are much relished by the Tristanites who call them "peak berries", and I take great pleasure in dedicating the variety to these friendly people.

Empetrum rubrum Vahl f. **pulvinatum** f. nov. — Fig. 7.

Differt a typo habito pulvinato.

Repeatedly and densely branched shrub of cushion habit. Leaves glandular ciliate but otherwise glabrous, usually also in the youngest stages, relatively small (2.5—3 mm long), lanceolate, elliptic or oblanceolate. Flowers apparently always unisexual, only male flowers seen.

TRISTAN DA CUNHA: above Settlement, alt. 750 m, mossy slope, fl, Dec. 21, no. 31 (type); above Burntwood, alt. 1150 m, fl, Jan. 6, no. 630; Soggy Plain, alt. 800 m, in *Scirpus* bog, fl, Jan. 15, no. 1128; E of Hottentot Gulch, alt. 800 m, bog, fl, Jan. 28, no. 1380; Soggy Plain, alt. 800 m, heath, Feb. 19, no. 1715.

This very distinct form differs from typical *E. rubrum* as delimited by Good (1927) in its cushion habit. From the cushion form described from the Falkland Islands, f. *falklandicum* R. Good, characterized by densely hirsute, subspathulate leaves, it differs distinctly in its glabrous leaves, only few of which can be characterized as subspathulate. From

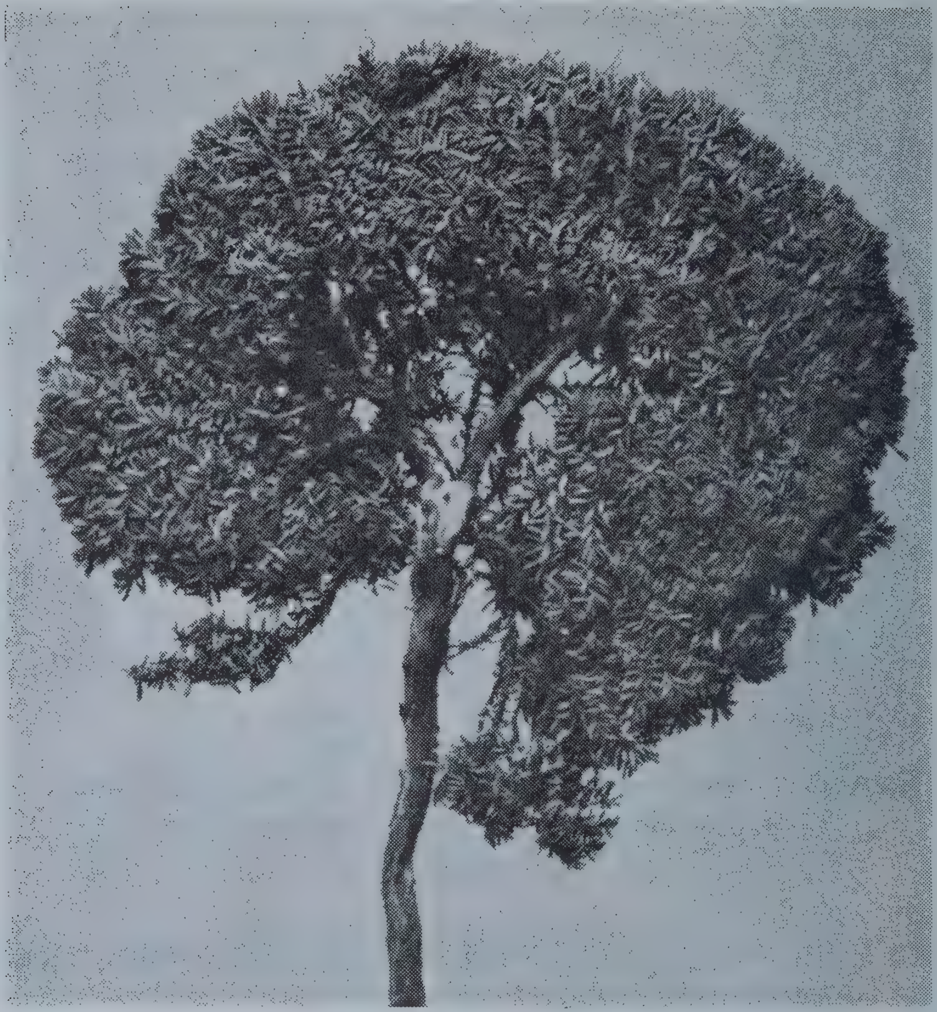

Fig. 7. *Empetrum rubrum* f. *pulvinatum*.
Type specimen. Nat. size.

f. *medium* it differs, in addition to its cushion habit, in its lesser degree of pubescence and its smaller leaves of relatively broader shape. It is only found at medium and high elevations, where it is of rather frequent occurrence.

Nertera depressa Banks et Sol. f. **fimbriata** f. nov. — Figs. 8 and 9.

Differt a typo margine foliorum papillifero vel fimbriato.

TRISTAN DA CUNHA: above potato patches, alt. 60 m, pasture, Jan. 3, no. 344; Hottentot Gulch, alt. 6—800 m, in mosses, Jan. 28, nos. 1374 and 1388 (type); Middle Pond, alt. 500 m, on rock, Feb. 24, no. 1619; Pigbite, alt. 6—800 m, in mosses, Feb. 24, nos. 1632 (fr), 1633 (fr), and 1638; Hottentot Gulch, alt. 650 m, in mosses, March 15, nos. 1723 (fr), 1724 (fl, y. fr), 1726, 1727, 1728 (fl, fr), 1729, 1730, 1733, and 1734; Hottentot Gulch, alt. 600 m, in mosses, March 23, no. 1761; above Settlement, alt 1000 m, in *Empetrum* heath, March 23, no. 1771; First Gulch, alt. 550 m, open ground, March 26, fr, no. 1817.

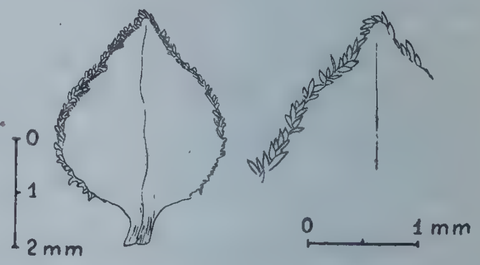

Fig. 8. *Nertera depressa* f. *fimbriata*. Leaf and leaf margin.
Type specimen.
Kirsten Arneberg del.

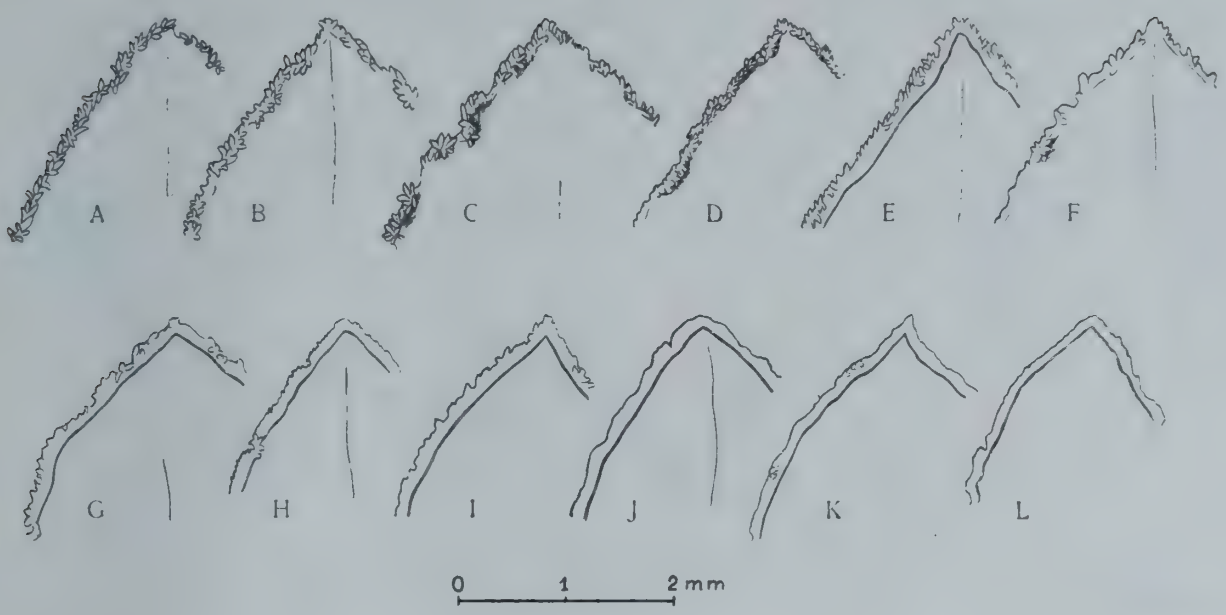

Fig. 9. *Nertera depressa* f. *fimbriata*. Leaf margins. A specimen no. 1761; B no. 1730; C no. 1724; D no. 1728; E no. 1633; F no. 1726; G no. 1632; H no. 1817; I no. 1727; J no. 1733; K no. 1374; L no. 1771. Kirsten Arneberg del.

Under this heading I have gathered a number of specimens which differ from typical *N. depressa* in that the cells of the callose margin are developed into papillae and hairs. All degrees of development exist, from slightly bulging cells to hairs 0.3 mm long, so that there is a continuous series from the extreme ciliate form to typical *N. depressa*. The leaves are small, to 8 mm long, and usually of the relatively broad type of *N. depressa*. The fruits are relatively small with seeds 2.0—2.6 mm long.

Nertera Holmboei sp. nov. — Fig. 10.

Herba glabra prostrata. Folia matura laminis 7×7 et 7×8 mm — 11×9.5 et 11×12 mm longis latisque late ovatis vel reniformibus acutis, basi attenuata vel rotundata, margine calloso integro non crispo vel fimbriato, petiolis compressis 2—5 mm longis. Stipulae late triangulares acutae vel acuminatae 1.5 mm longae. Calyx cupuliformis. Corolla hypocrateriformis 2+ mm longa ad medium (vel ad basin) divisa, laciniis ovatis acutis margine minute papillato. Stamina paulo exserta. Stylus profunde bifidus. Baccae submaturae compresso-globosae corallo-rubrae ad 4.5 mm altae 5 mm latae (in vivo). Semina hemi-ovoidea ad 3.3 mm longa.

Prostrate, diffusely branched, glabrous herb. Leaves broadly ovate to reniform, broadly acute at apex, rounded or attenuate at base, mature blades from 7×7 and 7×8 mm to 11×9.5 and 11×12 mm long and

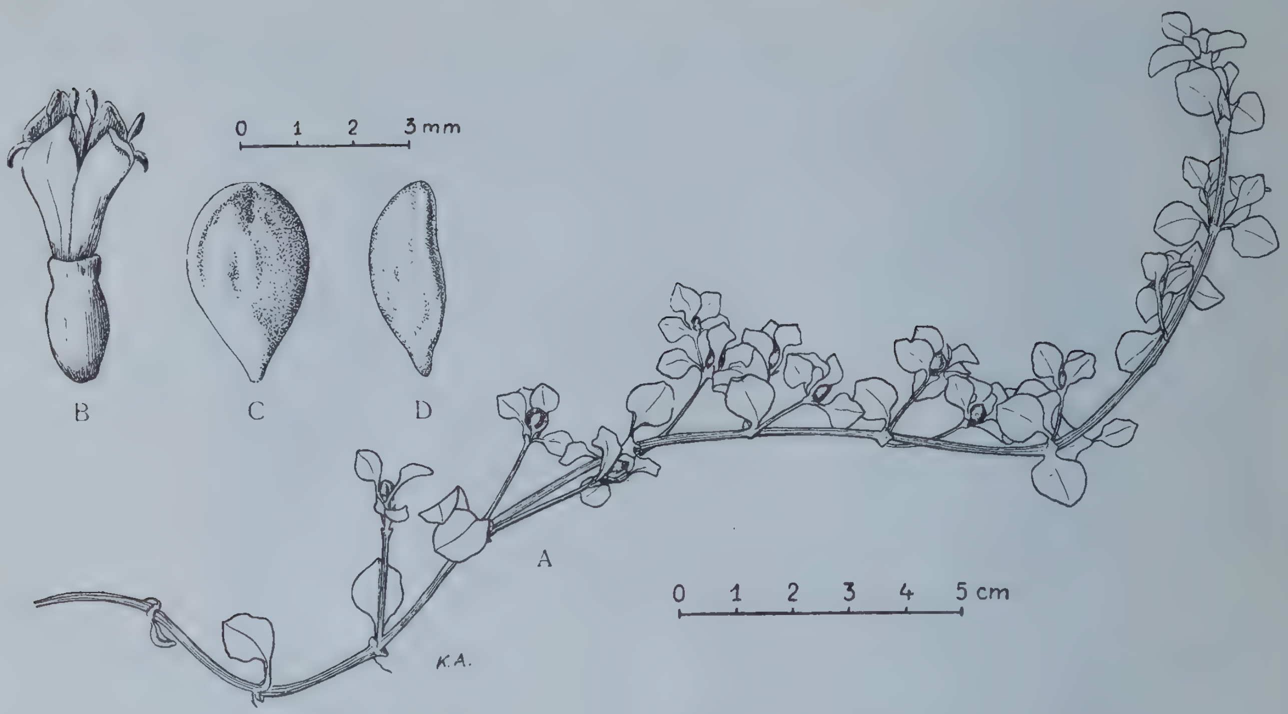

Fig. 10. *Nertera Holmboei.* A fruiting specimen; B flower; C seed, side view; D seed, edge view. Type specimen. Kirsten Arneberg del.

broad, margin callose, even, not crisp or fringed, petioles flattened, 2—5 mm long. Stipules intrapetiolar, broadly triangular, acute or acuminate, 1.5 mm long. Calyx indistinct, cupshaped. Corolla funnelshaped, slightly more than 2 mm long, divided to the middle, lobes ovate, acute, minutely papillate on the margins, or divided to the base with lobes narrowed below into a claw. Stamens alternate, slightly exserted. Style deeply bifid. Ovary oblong-oval in outline. Male flowers not seen. Berry flattened globose, submature specimens coral red, to 4.5 mm high and 5 mm broad (in vivo). Seeds hemi-ovoid, to 3.3 mm long.

NIGHTINGALE: lake region, alt. 200 m, in *Scirpus* meadow, passée fl, fr, Feb. 4, no. 2103.

MIDDLE: E end, alt. 25 m, rocky place in tussock field, fl, y. and submature fr, Feb. 1, no. 2021 (type).

STOLTENHOFF: E part, alt. 100 m, shaded moist place, fl, y. fr, Feb. 8, no. 2148.

INACCESSIBLE: plateau near W end, alt. 450 m, tree fern country, Feb. 23, no. 2476.

This species is distinct among all types of *Nertera* in Tristan da Cunha by its large, broadly ovate to reniform leaves with even margins and by its large fruits with seeds to 3.3 mm long. In size and shape of leaves it comes close to Hawaiian forms of *N. depressa* and also to some tropical and temperate South American forms, but the latter have more distinctly cordate, usually thinner leaves and slender petioles. The sterile specimens from Inaccessible Island (no. 2476) have somewhat larger leaves. On the field label of no. 2103 I have noted that the berries are 6 mm in diameter.

N. Holmboei is a species found only in the smaller islands of the Tristan da Cunha group. I take great pleasure in naming it in memory of the late Professor Jens Holmboe, who took a great interest in the work of the expedition.

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RESULTS OF THE NORWEGIAN SCIENTIFIC EXPEDITION
TO TRISTAN DA CUNHA 1937—1938. No. 12.

FISHES OF TRISTAN DA CUNHA

With Remarks on Age and Growth Based on Scale Readings.

BY

ERLING SIVERTSEN

Introduction.

The material of fish dealt with in this paper was collected by the writer during his stay at Tristan as a member of the Norwegian Scientific Expedition to Tristan da Cunha 1937—38. The collection includes 130 specimens, representing 15 different species, of which 7 are new to the fauna of Tristan da Cunha and 2 of them even new to science. Many of the species are rare and interesting fishes, previously recorded only once or a few times.

The fish were mainly caught in shallow water near the shore, from the surface down to about 70—80 metres. For fishing tackle, nets and hand-lines were used, as well as plankton nets in order to catch fish larvae. Two species of fish were taken in other ways: one from the stomach of a mollyhawk (*Diomedea geniculata*), the other from a stern (*Sterna*) carrying the fish ashore in its beak.

The collection at hand includes all the eleven species of fish known by the inhabitants of Tristan da Cunha, except two, namely the so-called "yellowtail" and the "steambras". The latter was said to visit the island in the winter time only. According to the description given by the Tristanites the steambras, which is a very large fish, may perhaps be a species of the genus *Seriolella*. I tried to get hold of the two species mentioned for further identification, by leaving a barrel filled with formalin on the island. Into this the islanders promised to put specimens of steambras or yellowtail when they caught some in the winter time. (Our expedition stayed at the island in the summer time only.) However, according to a letter sent us from Tristan da Cunha a year after we left, this attempt failed, because by an accident all the formalin in the barrel was lost.

In my collecting work at Tristan da Cunha I received valuable assistance from the inhabitants of the island. When they were out fishing I was always given from their catches the specimens I wanted for investigation. I therefore wish here to express my best thanks to all my good friends down there on the lonely island.

Further, I am much indebted to Dr. Barnard, South African Museum, who during our stay in Cape Town kindly gave me information on the fishes then known from Tristan da Cunha.

To all the other members of the expedition I furthermore wish to express my most sincere thanks for good co-operation and comradeship during the expedition. Especially to the leader of the expedition, Dr. Erling Christophersen, I am much indebted both for the opportunity of taking part in this interesting expedition as a marine zoologist, and for his inspiring interest in the work of the members and his excellent way of planning and leading the expedition.

The working out of this material was made possible by a grant from Det Videnskapelige Forskningsfond.

The type material and a complete set of all the species enumerated (except the shark, from which the jaws only were preserved) are deposited in Zoologisk Museum, Oslo, and some duplicates in Videnskapsselskapets Museum, Trondheim.

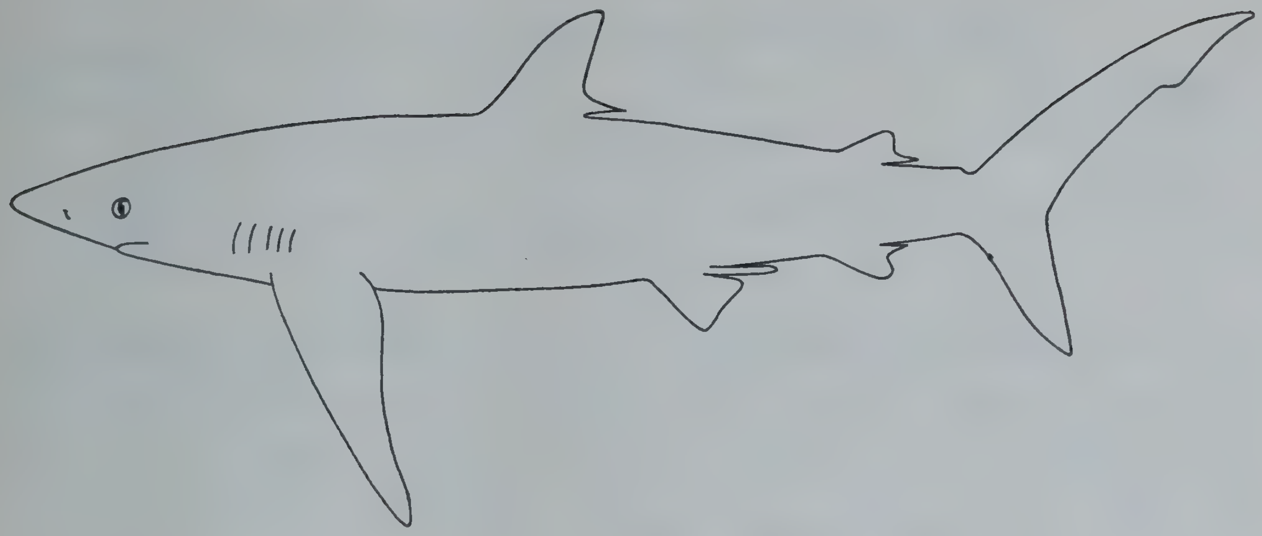

Fig. 1. *Glyphis glaucus.* Specimen from Tristan da Cunha, length 262 cm.

Systematic Part.

EULAMIIDAE

GLYPHIS Agassiz.

Glyphis glaucus (Linné). — *Squalus glaucus* Linné, 1758, Syst. Nat., 10th Ed., p. 235. — Fig. 1.

Description. Body elongate. Head (measured to first gill-openings) long, 5⅔ in total length. Length of snout 2¼ in length of head. Eye midway in head length, diameter 11½ in head. Teeth in 4 rows, about 30 in each row in upper as well as in lower jaw; teeth of upper jaw triangular, oblique, serrated; of lower jaw slender, lanceolate on broad bases, not serrated. First dorsal origin midway between snout tip and origin of upper caudal lobe. Second dorsal inserted a little nearer tip of lower caudal lobe than first dorsal origin. Anal a little larger than second dorsal, inserted slightly ahead of the latter. Caudal long, slightly falcate; notch in upper caudal lobe ⅓ its length. Pectoral long, 4½ in total length, 2⅔ its width. Ventral inserted about midway between origin of first and second dorsal.

Length. Up to 25 ft. Length of the Tristan da Cunha specimen 2620 mm.

Colour. Back blue, lower surface greyish white.

TRISTAN DA CUNHA: In the surface off Little Beach. January 8th, 1938. 1 specimen.

Further distribution: Widely distributed in the temperate and tropical seas of the globe.

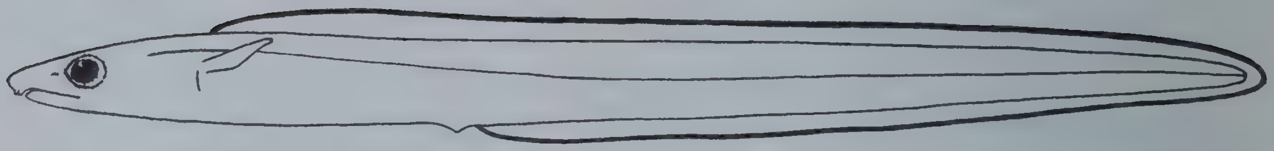

Fig. 2. *Congermuraena australis.* Specimen from Tristan da Cunha, length 26 cm.

One specimen of this Blue Shark was caught by means of handline outside the kelp zone at Little Beach. It was as well the only specimen of sharks observed near Tristan da Cunha during the stay of the Expedition at the Island. The Islanders, however, told us that sharks were not rarely seen near the coast.

CONGRIDAE

CONGERMURAENA Kaup.

Congermuraena australis Barnard. — *Congermuraena australis* Barnard, 1923, Ann. S. Afr. Mus., 13, pt. 8, p. 442. — ? *Congermuraena habenata* Rich. — Fig. 2.

Description. Depth of body 5, length of head 2½ in length of body to vent. Length of body to vent 1¾ in length of tail. Diameter of eye ¾ in snout, 2½ in interorbital width, 4½ in length of head. Lips thick and fleshy, snout overlapping lower jaw by ⅓ diameter of eye, cleft of mouth extending to below anterior third of eye. Nostrils well separated, anterior in short tube in lip near snout tip, posterior close before eye as a short horizontal slit. Lateral line complete. 8 pores in a row along mandible and lower side of head. Dorsal inserted a little behind origin of pectoral, which is 2½ in length of head.

Length. Up to 375 mm. Length of the specimen at hand 257 mm.

Colour. Brownish, the vertical fins with dark edging.

TRISTAN DA CUNHA: Found dead on the shore at Sandy Point. December 30th, 1937.

Further distribution: Coast of S. W. Africa, off Cape Peninsula, False Bay, 2—60 fathoms.

This species is, according to Barnard (1925, p. 190), earlier recorded from Tristan da Cunha. The specimen at hand differs in a few characters (depth of body, length of pectoral etc.) from the description given by Barnard. The discrepancies are, however, small and perhaps due to our specimen not being full grown.

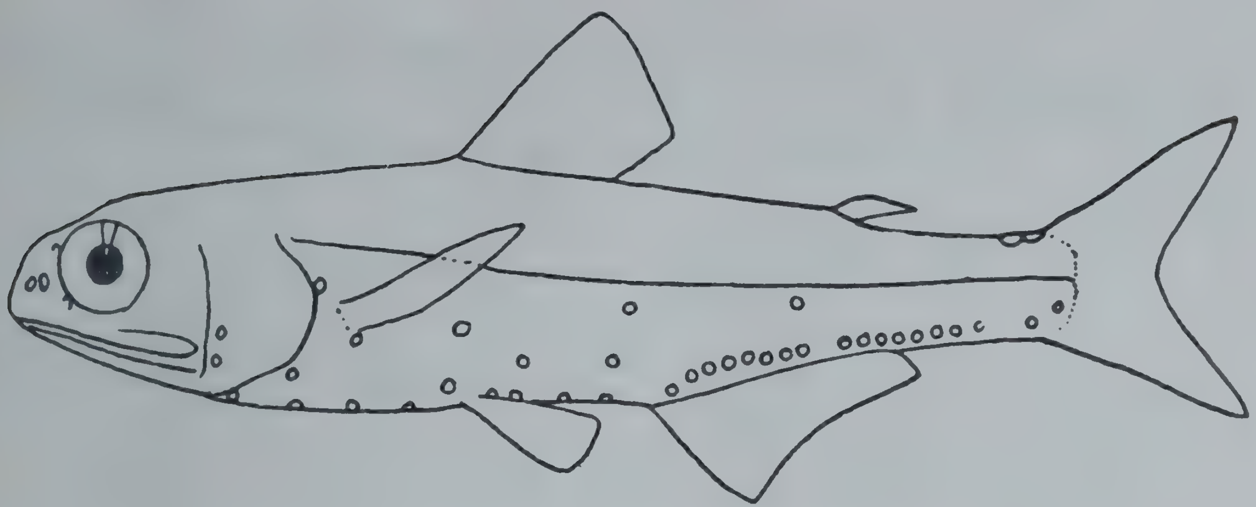

Fig. 3. *Myctophum Humboldti* (after Brauer).

Kner (1868, pp. 374—375) has recorded another species, *Congermuraena habenata?* Rich. from St. Paul Island (Indian Ocean). In fact, the specimen at hand shows many characters of *C. habenata* as well as of *C. australis*. However, lacking literature on the subject and material for comparison it is impossible for me to settle the question, but it seems to me that *C. australis* may perhaps be regarded as a synonym of *C. habenata*. If that is the case, *C. habenata* is common both to St. Paul and Tristan da Cunha as well as to New Zealand, from where it is originally described.

MYCTOPHIDAE

MYCTOPHUM Raf.

Myctophum Humboldti (Risso). — *Serpe Humboldti* Risso, 1810, Ichth., Nice, p. 358, pl. 10, fig. 38, Nice. — Fig. 3.

Description. Depth of body $4\frac{2}{5}$—5, length of head $3\frac{1}{4}$—$3\frac{1}{2}$, in length of body. Eye large, touching dorsal profile, twice length of snout, 3—$3\frac{2}{5}$ in length of head. Maxilla extending beyond hind margin of eye, feebly dilated. Snout not projecting. D 13—15, arising in front of middle of body, at same level as ventrals; A 20—23, arising below or just behind last ray of dorsal; P moderately long, not quite reaching to vent. Scales cycloid l. l. 40—42. Photophores situated as shown in fig. 3. (For more exact description of these systematically very important characters see Brauer, 1908, p. 193). Luminous plates 1—2 dorsal 2—3 ventral, in both sexes. (As our specimen was partly defect, the description above is in the main taken from Barnard, 1925, p. 243.)

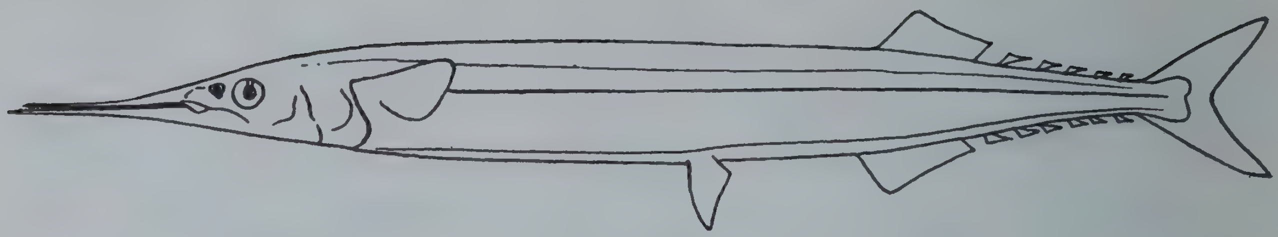

Fig. 4. *Scomberesox saurus* (after Fowler).

Length. Up to 120 mm. Calculated length of the Tristan da Cunha specimen about 65 mm.

Colour. Silvery; skin beneath scales brown.

TRISTAN DA CUNHA: Off Little Beach, in the surface. January 1st, 1938. 1 specimen.

Further distribution: Mediterranean, N.—S. Atlantic, Indo-Pacific Oceans, New Zealand, surface to 470 fathoms.

The single partly defect specimen at hand was originally caught by a tern (*Sterna*) which, with a shot close by, was frightened to drop its catch on the shore.

SCOMBERESOXIDAE

SCOMBERESOX Lacèp.

Scomberesox saurus (Walb.). — *Esox saurus* Walbaum, Arted. Pisc., III, p. 93, Cornwall. — Fig. 4.

Description. Depth of body 8⅘—9¼, length of head 3⅕—3½, in length of body. Head well compressed, tapers to long, slender thin jaws in front, the lower jaw a little longer. Snout 1¾ in rest of head. Eye 1½ in interorbital width, 2½—2⅔ in postorbital part of head. D 9—12, 5—6; A 12—13, 6—7. P shorter than postorbital part of head. V midway between base of caudal and anterior margin of eye. Caudal forked. (As our specimen was very defect, the description above is in the main taken from Barnard, 1925, p. 259 and Fowler, 1936, p. 437).

Length. Up to 450 mm. Length of the Tristan da Cunha specimen about 210 mm.

Colour. Greenish brown to dark blue on back, separated by a silvery lateral stripe from the silvery-white lower parts; fins light.

TRISTAN DA CUNHA: March 3rd, 1938. 1 specimen.

Further distribution: Temperate parts of N. Atlantic, St. Helena, South Africa, New Zealand, S. Australia.

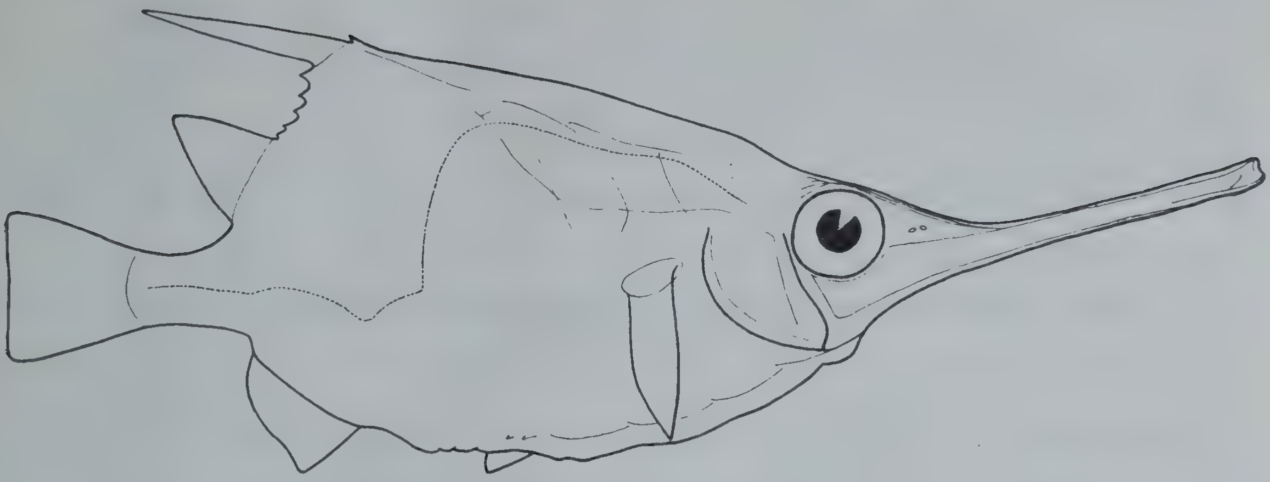

Fig. 5. *Notopogon Lilliei.* Specimen from Tristan da Cunha, length 21 cm.

The single, defect specimen at hand was taken from the stomach of a young mollyhawk *(Diomedea),* which had got all its food from its parents; the fish had thus passed two bird stomachs before coming into our possession. In spite of the bad condition of the fish there can hardly be any doubt that it belongs to this species.

MACRORHAMPHOSIDAE

NOTOPOGON Regan.

Notopogon Lilliei Regan. — *Notopogon Lilliei* Regan, 1914, Ann. Mag. Nat. Hist., (8) 13, p. 14, London. — Fig. 5.

Description. Distance from base of 2nd dorsal spine to vent $1^{1}/_{7}$ in that from head to caudal fin. Length of head 2 in length of body. Snout twice length of rest of head. Eye a little greater than postorbital part of head, 3⅗—3¾ in length of snout. D VII, 15; A 17—19. Second dorsal spine strong, serrated, its length 2⅘—3 in distance from head to caudal fin; inserted above middle of anal. Length of pectoral fin equal to length of head without snout. Caudal truncate.

Length. Up to 270 mm. The two specimens from Tristan da Cunha are 212 and 222 mm.

Colour. The dead specimens had a reddish brown colour, operculum and fins white grey. Barnard (1925, p. 279) states the colour of his specimen to be rose-pink, with silvery spots and bars.

TRISTAN DA CUNHA: Found dead on the shore at Little Beach. March 3rd, 1938. 2 specimens.

Further distribution: Natal coast, Southern Australia, New Zealand, 18—90 fathoms.

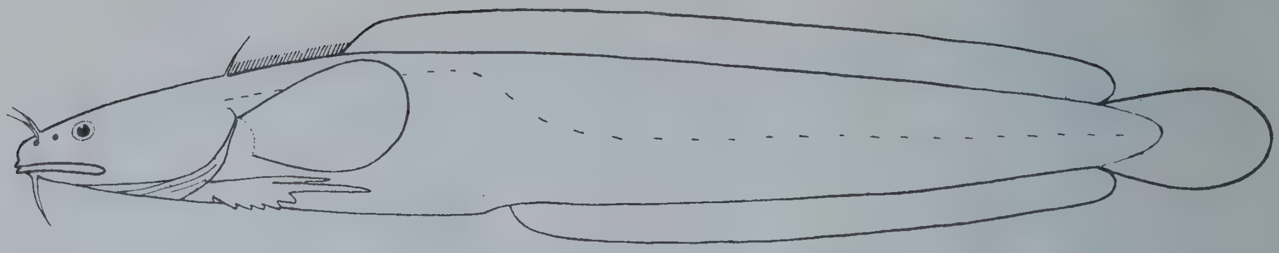

Fig. 6. *Gaidropsarus insularum.* Specimen from Tristan da Cunha, length 15.5 cm.

According to Barnard (1925, p. 279) one specimen only of this species has previously been recorded from South African waters. It thus seems to be very rare in the South Atlantic region.

GADIDAE

GAIDROPSARUS Raf.

Gaidropsarus insularum nom. nov. — *Gaidropsarus capensis* (Kaup), Kner 1868, Reise Novara, pp. 279—280, Taf. 13, fig. 3; Sauvage 1879, Archives Zoologie, 8, p. 42; Collett 1891, Vidensk. Selsk. Forhandl., pp. 11—12. — non *Gaidropsarus capensis* (Kaup), Barnard 1925, p. 323. — Fig. 6.

Description, Depth of body 6½—7, length of head 4⅘—5, in length of body. Eye 6⅔—7 in length of head, 1—1⅕ in interorbital width and 1⅗—2 in length of snout. Maxilla extending about half eye diameter beyond posterior margin of eye. Mandibular barbel equal to 1st ray of 1st dorsal, shorter than snout, and 4⅕—4½ in length of head. First dorsal with 47—49 filaments in the fringe behind 1st ray; 2nd dorsal with 62—64 rays. A 52—54; P 20—21; V 7—8, 2nd ray longest and reaching two-third way to vent. Caudal evenly rounded. Least depth of caudal peduncle 2⅔—2⅘ in length of head. Scales l. l. about 250. Lateral line faintly marked, running near the back from head to above anus, then strongly bending down and running backwards along the median line; the tubes are assembled in 24—28 groups, generally with 4 tubes in each group.

Length. The specimens at hand are 140, 155, and 165 mm.

Colour. (Specimens preserved in formalin.) Evenly light brownish; vertical fins with a narrow white band marginally.

TRISTAN DA CUNHA: In small tide water pools. January 16th and March 29th, 1938. 3 specimens.

Further distribution: St. Paul (Indian Ocean).

The specimens at hand agree fairly well with the description given by Kner (1868, pp. 279—280) of 2 specimens taken during the Novara-Expedition at St. Paul Island. Later on Sauvage (1879, p. 42) identified another specimen from St. Paul as belonging to the same species. Collett (1892, pp. 11—12) who also made an examination of the two specimens from the Novara-Expedition, has given a more complete description of the species, and as regards the main characters our specimens from Tristan da Cunha agree with his description. There are a few discrepancies, especially regarding the number of rays in the vertical fins, which however, is of less importance, as it is very difficult to carry out an exact count of the rays, because they are covered with skin. Furthermore, taking into consideration the European species of *Gaidropsarus,* we find that the number of rays of each fin may vary very much in one and the same species. There can therefore hardly be any doubt that the specimens from St. Paul and those from Tristan da Cunha belong to one and the same species. However, Kner as well as Sauvage, and Collett (l. c.) referred the St. Paul specimens to *G. capensis* (Kaup). Kaup's description (1858, p. 90), however, is very incomplete and without figures. As long as no other species of *Gaidropsarus* was known from the southern region around South Africa, and no more complete description of the species from Cape was given, it was natural to think that the St. Paul as well as the Tristan specimens were identical with the Cape specimen described by Kaup as *G. capensis.*

However, in his Monograph of the Marine Fishes of South Africa, Barnard (1925, p. 323) gives a description of some specimens from Kalk Bay and Algoa Bay, and identifies them as belonging to *G. capensis* (Kaup). His description, however, is so different from those of Kner, Sauvage, and Collett (l. c.) that there can hardly be any doubt that two different species are represented. From Kaup's original description we cannot determine which of the two species is identical with his *G. capensis,* but it seems most reasonable to me to give the priority to Barnard's specimens which have apparently been taken in the same area as Kaup's type specimen (locality not given). The specimens from St. Paul and Tristan da Cunha then need a new name, and I propose *Gaidropsarus insularum.*

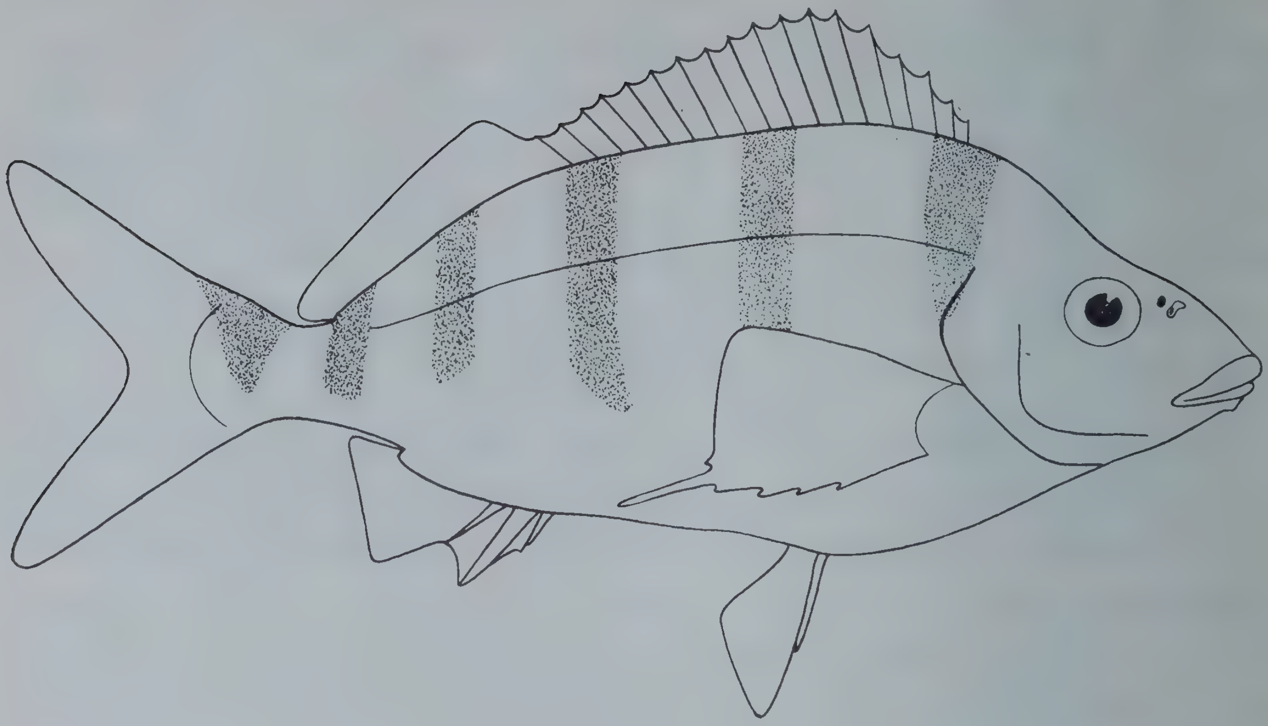

Fig. 7. *Acantholatris monodactylus.* Specimen from Tristan da Cunha, length 27 cm.

CHILODACTYLIDAE

ACANTHOLATRIS Gill.

Acantholatris monodactylus (Carmichael). — *Chaetodon monodactylus* Carmichael, 1818, Trans. Linn. Soc., 12, p. 500, pl. 24, London. — Fig. 7.

Description. Depth of body 2⅖—2⅘, length of head 3—3⅗ in length of body. Diameter of eye 1—1⅖ in interorbital width, 3½—5 in length of head. Mouth small, retractile, maxilla extending about half the distance only to the eye. Interorbital space as well as operculum and pre-operculum covered with minute scales. D XVI—XVIII, 24—27. A III, 11—13. P 14—15. V I, 5. Length of first dorsal spine very short, 6th to 7th longest, the latter 2⅓—3⅖ in length of head. Length of pectoral nearly the same as length of head; the upper 9 rays split, the lower 5—6 ones simple, the first of which about twice the length of the others. Caudal deeply forked. Lateral line evenly curved, keeping in the upper part of the body and caudal peduncle. Scales l. l. about 51—59.

Length. Up to 23″ (Kner 1868, p. 91). Length of the specimens at hand 152—340 mm. The largest specimen measured by the author at Tristan da Cunha was 64 cm.

Colour. Brownish with 5—6 dark vertical bands crossing the body (specimens preserved in formalin).

TRISTAN DA CUNHA: Near the shore at a depth of 3—40 m. December 1937 to March 1938. 41 specimens caught with hand-line and net.

NIGHTINGALE: February 11th, 1938. 15 specimens caught with hand-line from the rocks near the landing (NE point). Further lots were seen here, snatching at two floating penguin carcases.

MIDDLE: February 1st, 1938. 27 specimens caught with hand-line from the shore.

Further distribution: Gough Island, St. Paul (Indian Ocean).

This species, which was originally described by Carmichael (1818, p. 500) from Tristan da Cunha, was later on confused (Günther, Gay) with specimens from Chile. Kner (1868, p. 90—92) who redescribed the species from specimens taken at St. Paul, stated that these and the Chilean specimens belonged to different species.

As we had a fairly large material at hand, 37 specimens preserved in formalin, we could easily show how some of the characters mentioned in the description varied with the size of the fish. In the table below we have extracted the two most varying characters, taking the mean values from five of the smallest, five of the middle sized, and five of the largest specimens.

Mean length of five fishes	172 mm	237 mm	302 mm
Length of head/diam. of eye	3.7	4.0	4.5
Length of head/length 7th D spine	2.6	2.8	3.1

In other characters as length of body in relation to depth of body or length of head, no such regular variation in accordance with the size of the fish was found.

BOVICHTHYIDAE

BOVICHTHYS Cuv. et Val.

Bovichthys diacanthus (Carmichael). — *Callionymus diacanthus* Carmichael, 1818, Trans. Linn. Soc., 12, p. 501, pl. 24, London. — Fig. 8.

Description. Depth of body 4—5½, length of head 2⅔—3⅖ in length of body. Length of snout 1—1½ the diameter of eye, 3—3⅔ in length of head. Diameter of eye 3½—4⅘, interorbital width 6⅓—9⅓ in length of head. Interorbital region concave; maxilla extending to below anterior part of eye. Opercular spine $^1/_2$—$^9/_{10}$ the dia-

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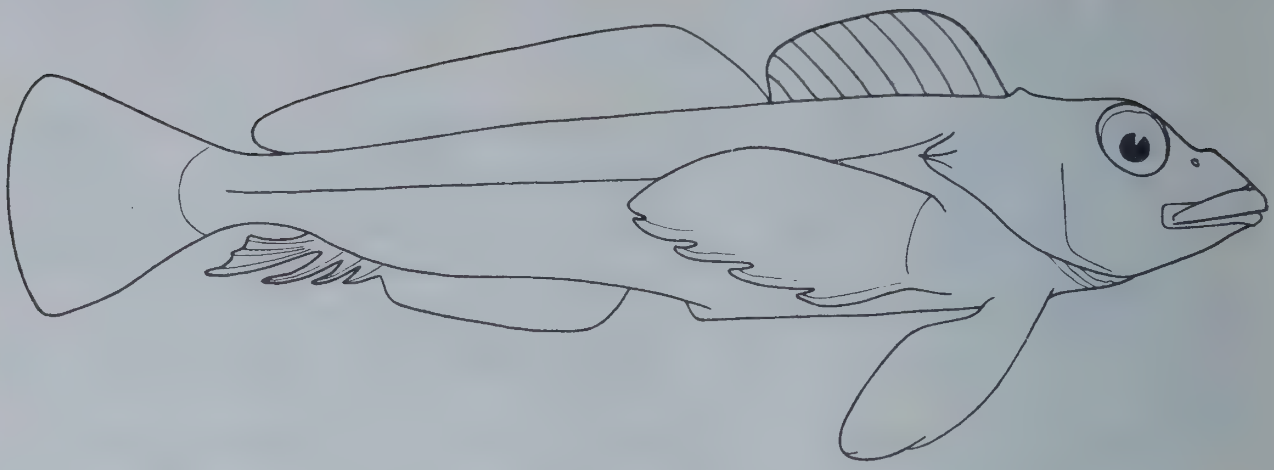

Fig. 8. *Bovichtys diacanthus.* Specimen from Tristan da Cunha, length 18 cm.

meter of eye; 8—9 gill-rakers on lower part of anterior arch. D VIII—IX, 20—21. A 15—16. Length of pectoral fin ¾—1 the length of head. Caudal subtruncate.

Length. 51—226 mm.

Colour. More or less dark brownish with a green hue, darker above, lighter below; lower border of paired fins as well as anal and caudal with a more or less distinct white band marginally.

TRISTAN DA CUNHA: Near the shore at depths of 0—15 m. December 1937 to March 1938. 39 specimens.

MIDDLE: Near the shore. February 1, 1938. 2 specimens.

Further distribution: Gough Island.

This species was originally described by Carmichael (1818, p. 501), and later re-described by Regan (1913 a, p. 256) from a specimen taken at Gough Island. In his monograph of the Nototheniformes Regan (1913 a, p. 255) uses the interorbital width as a chief character in separating the different species of the genus *Bovichthys*. For the species *B. diacanthus* (Carmichael) he states the interorbital width to be $^1/_{11}$ of the length of the head. For the specimens at hand, however, this proportion is found to vary from about $^1/_6$ to $^1/_9$, with a mean value of about $^1/_8$. In all other characters, however, the specimens at hand agree very well with Regan's description of a specimen from Gough Island.

Owing to the larger number of specimens investigated we find in most characters a far wider range of variation than stated by Regan. How certain proportions may vary according to the size of the fish, can easily be demonstrated by means of the material at hand. Thus the proportion: length of head to diameter of eye, for the five smallest

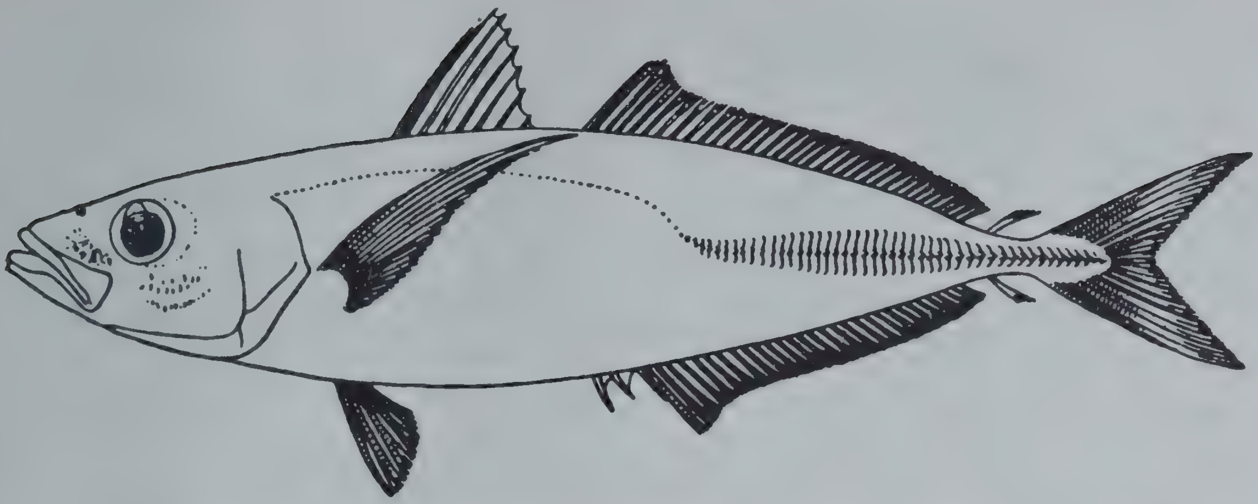

Fig. 9. *Decapterus longimanus* (after Norman).

specimens, the five medium sized, and the five largest, will vary as follows:

Mean length of five fishes	78 mm	147 mm	213 mm
Length of head/diam. of eye	3 3/5	3 9/10	4 2/5

This clearly shows that the eye is relatively larger in smaller specimens of the fish.

CARANGIDAE

DECAPTERUS Bleeker.

Decapterus longimanus Norman. — *Decapterus longimanus* Norman, 1935, Ann. Mag. Nat. Hist. (10) 16, p. 255, fig. 1, London.— Fig. 9.

Description. Depth of body 4½—5, length of head 3⅗—4 in length of body. Eye 1⅓—1⅖ in length of snout, 1—1 1/10 in orbital width, and 4—4⅗ in length of head. Maxilla just reaching anterior edge of eye, its hinder border evenly truncate. 41—42 gill-rakers on lower part of anterior arch. About 100—105 scales in the lateral line, the last 43—49 forming keeled scutes; first scute situated in front of level of middle of second dorsal. D VIII + I, 30—34 + 1; A II + I, 25 — 28 + 1. Pectoral falcate 9/10 — 1 in length of head.

Length. Length of the specimens at hand 430 to 620 mm. The largest specimen measured by the author at Tristan da Cunha was 68 cm, with a weight of 2.4 kg.

Colour. Bluish black above, brownish to yellow on the sides and below. (Described from specimens preserved in formalin.)

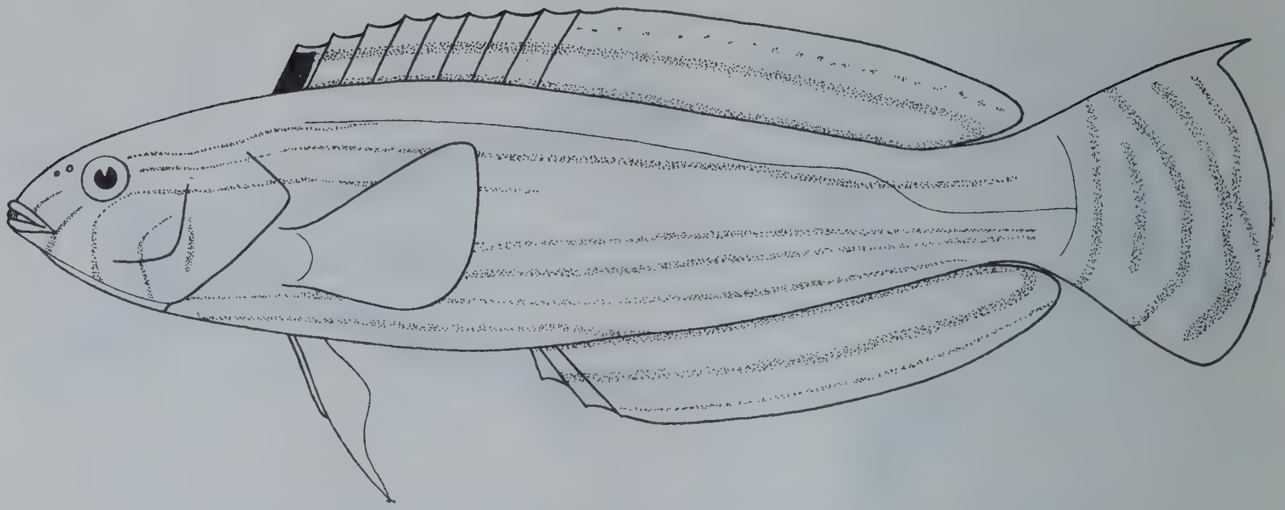

Fig. 10. *Labrichthys ornatus.* Male specimen from Tristan da Cunha, 17 cm long.

TRISTAN DA CUNHA: Near the surface off Little Beach. December 1937 to March 1938. 5 specimens.

Further distribution: This species is endemic to Tristan da Cunha. Two specimens only are previously recorded.

In the most important characters, as the long pectoral fin, number of scutes, etc., our specimens agree very well with Norman's original description of the species, but as seen from our description above a wider range in some characters is found. This is due partly to the larger number of specimens examined, partly to the larger size of our specimens.

LABRIDAE

LABRICHTHYS Bleeker.

Labrichthys ornatus (Carmichael). — *Labrus ornatus* Carmichael, 1818, Trans. Linn. Soc., 12, p. 502, pl. 27, London. — Fig. 10.

Description. Depth of body 3⅘—4½, length of head 3⅖—4 in length of body. Eye 4⅔—6, interorbital width 4—5⅕ in length of head. Snout 1⅕—1⅘ longer than diameter of eye, 3—4 in length of head. Maxilla not extending to level of front margin of eye. Interorbital and pre-operculum naked, cheek covered by 2 or 3 series of small scales, operculum with a few very large scales. D IX, 12—14. A III, 12—13. Pectoral ⅔—¾ the length of head. Caudal subtruncate, the males often with a short outstanding point in the upper part of the caudal fin. Lateral line running near the back, bending down to the median line in the last ⅕ only. Scales 1. l. 27.

Length. Males 168—196 mm, females 118—184 mm.

Colour. Lower part of head with 5 subvertical narrow stripes, the third one bending backwards below the eye out to the opercle; body with 7 longitudinal stripes, 2 of which continued from operculum; dorsal and anal with 2 or 3 longitudinal stripes, one near the base, the second in the middle, the third near the margin and less marked than the others; caudal crossed by 4—6 distinct stripes. A black spot between two first dorsal spines. Female with markings less distinct than in male, and with a black spot at base of posterior part of dorsal fin, and another on upper part of base of caudal. In living specimens the colour is very variable; some specimens, especially large males, with a nice motley magnificence of colour where the azure stripes distinctly stand out against the brownish ground colour which in the fins may partly be more purplish; females always more evenly brownish coloured with less conspicuous azure stripes.

TRISTAN DA CUNHA: Sixteen specimens were caught in tide water pools. A single specimen was caught further out in the kelp zone at a depth of 25 m. January to March, 1938.

Further distribution: St. Paul (Indian Ocean).

This species, which was originally described by Carmichael (1818, p. 502), was re-described by Regan (1913, pp. 467—468) who also found that the two species from St. Paul, *L. Lantzii* and *L. isleanus*, described by Sauvage (1879, p. 37—40) were male and female of one and the same species, and identical with *L. ornatus* (Carmichael).

GEMPYLIDAE

THYRSITES Cuvier.

Thyrsites atun (Euphrasen). — *Scomber atun* Euphrasen, 1791, K. Vetensk. Akad. Handl., Stockholm, 12, p. 315. — Fig. 11.

Description. Body elongate, slender, compressed. Depth of body 7—9, length of head $3^{4}/_{5}$—$3^{9}/_{10}$ in length of body. Snout slender, 2—2⅕ in length of head. Eye 3½—3⅗ in length of snout, 7½—7⅘ in length of head. Maxilla reaching to level of front margin of eye. Row of strong teeth in each jaw and 2 large upper canines anteriorly. D XIX—XX, 11 + 5 — 7; A II, 9 — 10 + 7. Fourth dorsal spine 3—3⅓ in length of head; caudal deeply forked; pectoral 2⅓—2⅖ in length of head.

Length. Greatest length (specimen caught at Tristan da Cunha) 1280 mm. Length of the specimens at hand 870 and 890 mm.

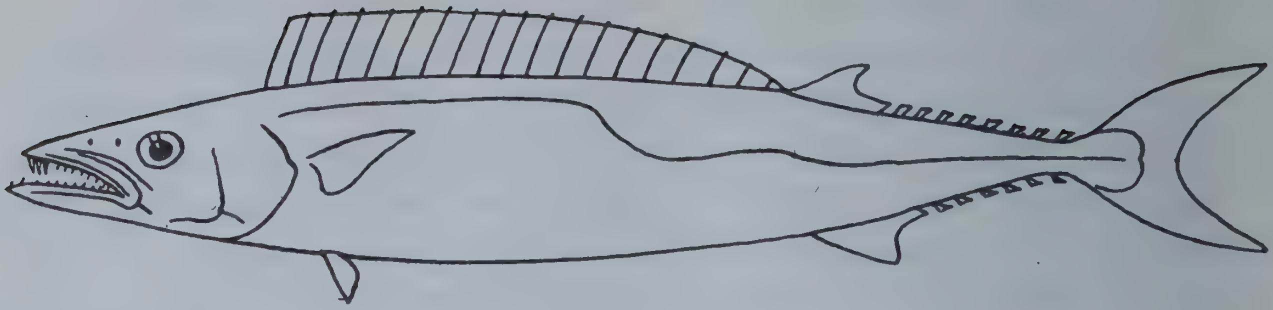

Fig. 11. *Thyrsites atun* (after Fowler).

Colour. Brownish black above, silvery grey below. (Specimens preserved in formalin.)

TRISTAN DA CUNHA: Off Little Beach, near the surface. December 1937 and March 1938. 2 specimens.

Further distribution: St. Paul, Australia, Tasmania, New Zealand, Chile. Down to 40 fathoms.

The two specimens at hand differed very much as far as their weights were concerned. The largest specimen with a total length of 890 mm weighed 3.2 kg; the smallest one, however, with a length of 870 mm, weighed only 2.0 kg. This large difference in weight of two specimens of nearly the same size, is also easily visible, the smaller specimen looking much thinner and more slender than the larger one. The proportion: length of body/depth of body, was correspondingly 7 in the largest, 9 in the smallest specimen, which indicates, compared with data given in literature (Fowler, Barnard, Lampe) that the weight of the larger specimen seems to be the ordinary, and that the smaller specimen was exceptionally lean.

This view is further confirmed by comparison with the other 9 specimens of snoek measured and weighed by us at Tristan da Cunha. The length of these specimens varied from 80 cm to 128 cm, and the weight from 2.8 kg to 7.5 kg, with an average length of 101 cm and an average weight of 4.5 kg. By further comparison and study of the quality of the fish it is handy to use the "condition-factor" K, commonly used in fishery investigations, and expressed by Fulton's formula:[1]

$$K = \frac{p}{l^3} \cdot 100$$

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[1] Fulton, T. W., 20th Ann. Rep. Fish. Board. Scotland, Glasgow 1902.

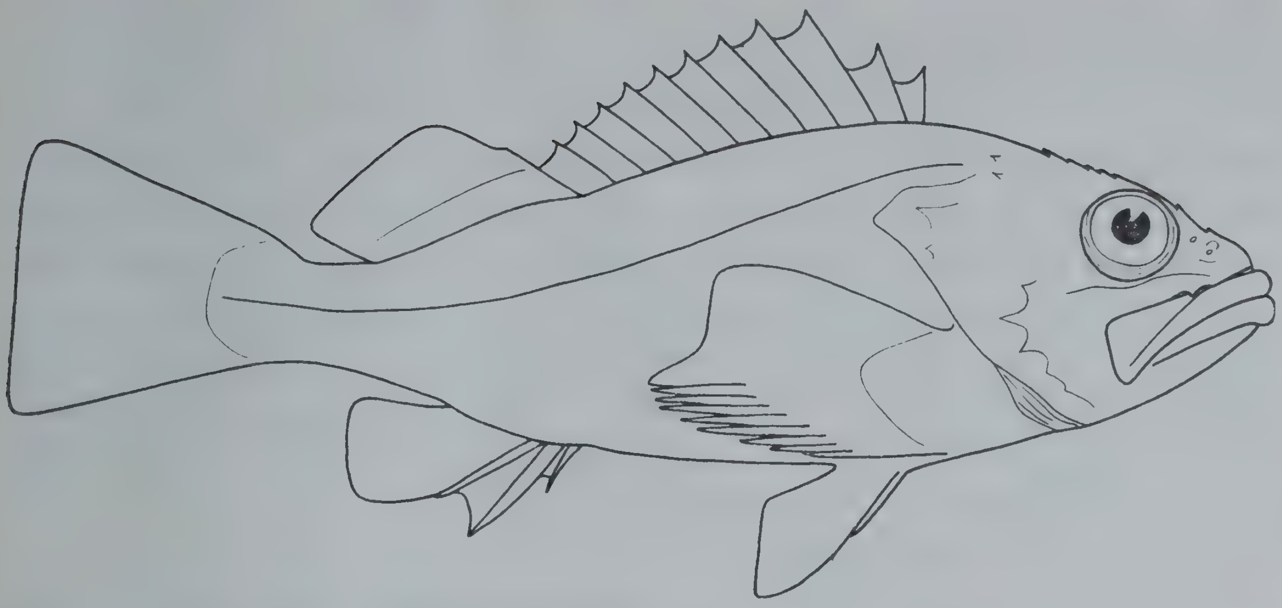

Fig. 12. *Helicolenus tristanensis* sp. nov. Holotype, 30 cm long.

Here p means the weight of the fish in gram, and l the length in cm. For the 9 specimens of snoek mentioned the mean value of K is found to be 0.44, which agrees very well with the largest specimen at hand, where K was 0.45, while in the smallest one, which was so lean, K was only 0.30.

SCORPAENIDAE

HELICOLENUS Goode et Bean.

Helicolenus tristanensis sp. nov. — Fig. 12. Plate I, 1.

Description. Depth $3^1/_8$—$3^2/_8$, length of head 2½—2⅗ in length of body. Eye 3⅕—3⅗ in length of head. Snout ¾, interorbital width about ½ diameter of eye. Interorbital space concave, naked, with 2 ridges somewhat more prominent than in *Sebastichthys capensis*. Maxilla extending to below last third of eye, jaws naked except a few scales on hind end of maxilla. Scales on top of head, and on cheeks and opercles. A pair of nasal spines; supraorbital ridge with 1 anterior and 3 small posterior spines; a pair of occipital ridges, each ending posteriorly in a small spine. Two small spines just above opercle, 2 on angle of opercle, and 5, of which the upper second is strongest, on margin of preopercle. A small knob at symphysis of lower jaw. Gill-rakers 19—20 on lower part of anterior arch, about ¼ diameter of eye in length. D XII, 12—14, 3rd to 5th spine about equal in length, ¼—

1/3 in length of head. A III, 5, last soft ray bifid, 2nd spine strongest, a little longer than 3rd, and of about same length as longest dorsal spine. Pectoral truncate, 18—19 rays, the middle ones somewhat prolonged and extending to, or a little beyond vent; the rays arranged in three groups: the first of 1—2 simple, the second of 8—9 branched, the third of 8—9 simple rays, the tips of the latter free from membrane for about half their length. Ventrals I, 5, arising just behind bases of pectorals, the tip extending to vent in the males, a little shorter in the female. Caudal truncate. The number of scales in lateral line is hard to determine, but it appears to be 70—80, 28—30 of them tube-bearing. Base of soft dorsal minutely scaly.

Length. 240—300 mm.

Colour. The entire body, except the light belly, and the fins covered with small, dark brown spots, somewhat confluent on the back (specimens preserved in formalin); lining of body cavity and gill-cover black, the tongue as well as the back part of the mouth lead colour.

TRISTAN DA CUNHA: January—March 1938. 3 specimens caught by nets and hand-line, at a depth of 40—50 m.

The description of this species is based on three specimens, 240, 265, and 300 mm in total length; the largest one (a female) is selected as the holotype. The two paratypes are males. *H. tristanensis* is closely allied to the South African species *H. maculatus* (C. et V.). It differs in the smaller depth of body, the smaller eyes, the longer dorsal spines, and the larger number of scales in the lateral line. However, these differences are small and will, perhaps, when examining a large number of specimens prove to be individual variations only. The main difference, however, are the number and size of the gill-rakers, the prolonged rays in the pectoral fin, and the colouration. As all the specimens at hand are in a preserved state, the original red colour has disappeared and the dark brown spots are distinctly outstanding. The dorsal fin, especially in the basal half, is covered with a number of such spots, irregularly spread; in *H. maculatus* a single brown spot is only found at the base of each dorsal spine.

The five[1] Atlantic species of *Helicolenus*, viz. *H. dactylopterus, maderensis, maculatus, lahillei,* and *tristanensis* seem to be closely allied, and according to Barnard (1927, p. 908) the three first species

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[1] Later on I have been aware of a sixth Atlantic species, *H. microphthalmus* Norman (Norman 1935 a, p. 25), which has the same colouration as *H. tristanensis* but differs in the smaller eyes and in having 3 pairs of spines on the occiput.

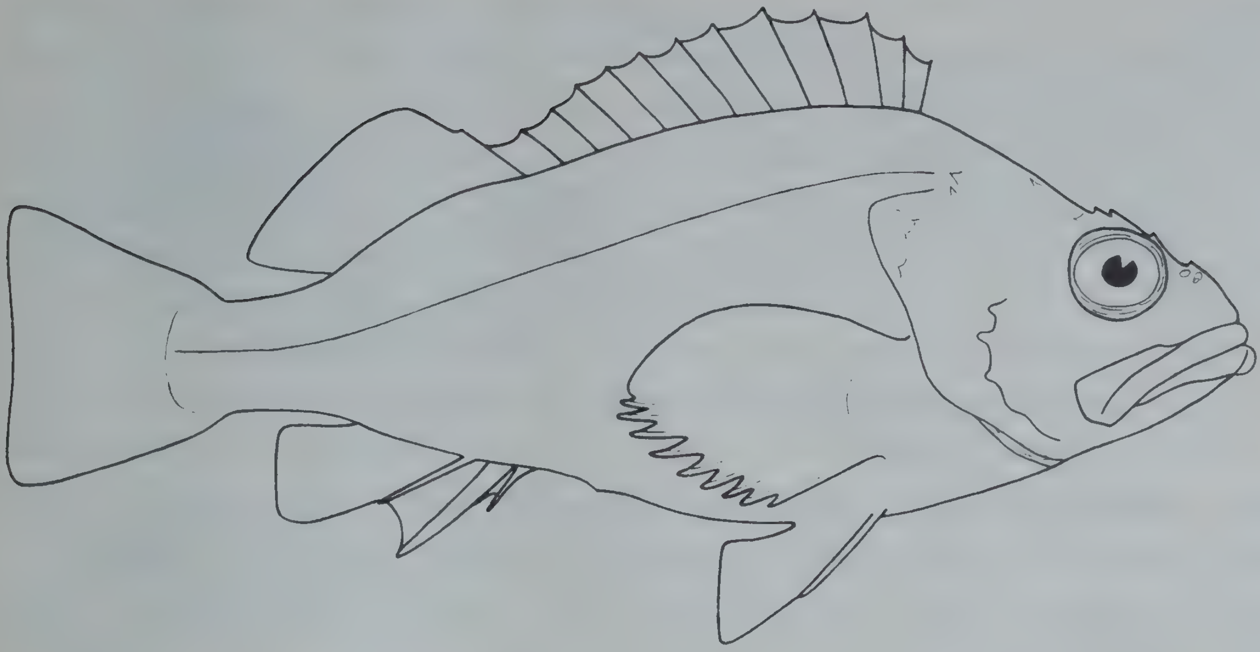

Fig. 13. *Sebastichthys capensis*. Specimen from Tristan da Cunha, 26 cm long.

are "differing mainly in the colouration". A later revision of these species, based on a larger material, will perhaps show that some of them form a unity. As I have no material of the other species at hand for comparison, I have found it necessary to give the specimens from Tristan da Cunha a new, or rather preliminary name in order to avoid confusion.

It seems to me that *Sebastes (Sebastichthys) Mouchezi* (Sauvage) from St. Paul should also be regarded as belonging to the genus *Helicolenus*. According to the description by Sauvage (1879, pp. 15—16) *S. Mouchezi* has only 12 dorsal spines, the number of which is typical for the genus *Helicolenus*. In the genus *Sebastichthys*, however, the number of dorsal spines is at least 13. From *H. tristanensis* the St. Paul species is distinguished by the rounded pectorals, by the smaller number of scales in the lateral line (55), by the longer and stronger spines on the preopercle, and also by the spots on the body which are coloured black.

SEBASTICHTHYS Gill.

Sebastichthys capensis (Gmelin). — *Scorpaena capensis* Gmelin, 1788, Syst. Nat., 3, p. 1219. — Fig. 13.

Description. Depth $2\frac{4}{5}$—$3\frac{1}{10}$, length of head $2\frac{2}{5}$—$2\frac{3}{5}$ in length of body. Eye $3\frac{1}{2}$ (younger specimens) to $4\frac{9}{10}$ (older specimens) in length of head. Snout $1\frac{1}{5}$ (younger) to $\frac{9}{10}$ (older) in diameter of eye. Interorbital space $\frac{1}{2}$—$\frac{2}{3}$ diameter of eye, concave, with 2 less prominent ridges, scaly. Maxilla nearly reaching to below hind border of eye. A pair of nasal spines; supraorbital ridge with 1 anterior and 3 posterior spines; a pair of occipital ridges, each ending in a small spine. Two small spines just above opercle and 2 on angle of opercle. On the margin of preopercle 5 spines are found, the lower 2 (3) blunt and less conspicuous. A knob at symphysis of lower jaw. Gill-rakers 19—20 on lower part of anterior arch, ¼—⅓ diameter of eye in length. D XIII, 13—14, 3rd and 4th spine longest 3⅓—4 in length of head. A III, 6, the last soft ray bifid, second spine very strong and about 1⅓ longer than longest dorsal spine. P 18—19, the lower 9—10 rays simple. Caudal truncate. Number of scales in lateral line hard to count, lateral line tubules 36—43. Numerous small accessory scales mixed in with the larger ones on the body. Basis of vertical fins minutely scaly.

Length. Up to 400 mm. Length of the specimens at hand 170—370 mm.

Colour. The preserved specimens at hand have a fairly even brown colour. According to Barnard (1927, p. 909) the colour is “red, shading to orange below; several silvery-white or pinkish irregular spots on sides above the lateral line; fins red, membrane of spinous dorsal mottled with brown; iris golden”.

TRISTAN DA CUNHA: December 1937—March 1938, at a depth of 0—50 m. 8 specimens.

NIGHTINGALE: February 11th, 1938. 2 specimens caught with hand-line from the rocks near the landing (NE point).

MIDDLE: February 1st, 1938. 1 specimen caught with hand-line from the shore.

Further distribution: South Atlantic, Gough Island.

? **Sebastichthys capensis** (Gmelin). — Fig. 14.

In the material at hand 4 small fish larvae were found, 3 of which had a total length of 3 mm, the 4th being 6 mm. They were caught in plankton nets in the surface of the sea off Little Beach from December 17th to 30th, 1937. Probably all of them belong to one and the same species, but the smallest ones are not sufficiently developed to be determined at all. The largest specimen is more developed and may thus give us an idea of what species it is.

If we suppose that this fish larva belongs to one of the species hitherto recorded from Tristan da Cunha, it most probably is to be placed in the family *Scorpanidae*. This is confirmed by the general shape of the larva, the large head and eye, the large mouth, which extends backwards to the hind part of the eye, the shape of the pectoral

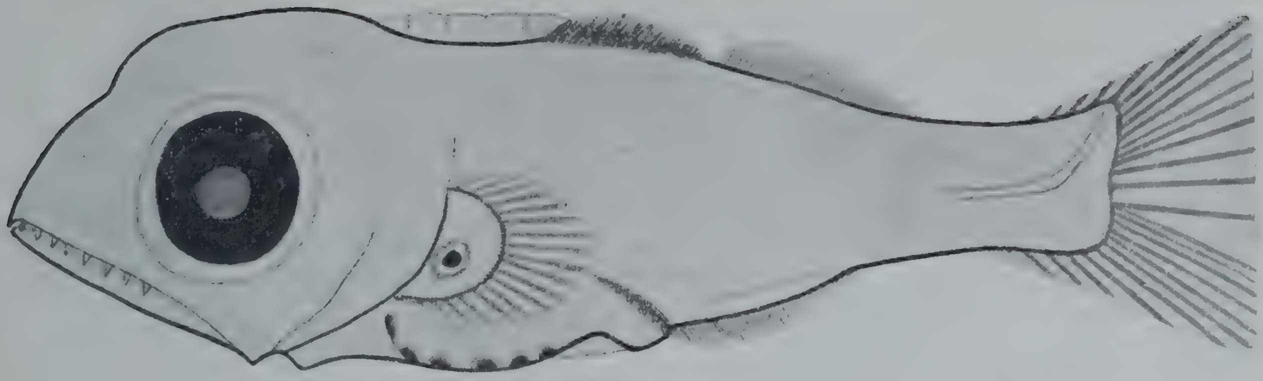

Fig. 14. ? *Sebastichthys capensis.* Larva, 6 mm long.

fin, as well as the indicated placing of the dorsal and anal fins. It is impossible by means of this single larva to determine to which of the two species of *Scorpaenidae,* viz. *Sebastichthys capensis* or *Helicolenus tristanensis,* this larva belongs. However, as the former seems to be by far the most common at Tristan da Cunha, it is most natural to consider it as belonging to that species.

CENTROLOPHIDAE

SERIOLELLA Guichenot.

Seriolella antarctica (Carmichael). — *Perca antarctica* Carmichael, 1818, Trans. Linn. Soc., 12, p. 501, pl. 25, London. — Fig. 15. Plate I, 2.

Description. Depth of body 3⅗ in total length, 3⅙ in length of body; length of head 3⅗ in total length, 3⅙ in length of body. Profile of head slightly convex to ahead of the nostrils, then bending steeply down to the jaw. Snout relatively long, 1½ the diameter of eye, 3¼ in length of head. Maxilla extending to about middle of eye, lower jaw distinctly projecting beyond the upper, both with a single series of rather small teeth. Nostrils situated about midway between eye and snout tip, diameter of eye $4^9/_{10}$ in length of head, $1^3/_4$ in interorbital width. Interorbital space and preopercle naked; cheek, interopercle, and opercle scaly. Posterior edge of preopercle emarginated, the angle rounded and obtusely crenulated. Number of branchiostegals 7.

D VIII, 19. Spines of dorsal fin begins somewhat behind the vertical from the base of pectoral, distance from snout tip to dorsal origin 2¾ in length of body, length of dorsal 2⅕ in length of body; spines small and feeble and can be entirely hidden in a groove, soft rays considerably longer, especially the anterior ones, the basal half of the fin covered by

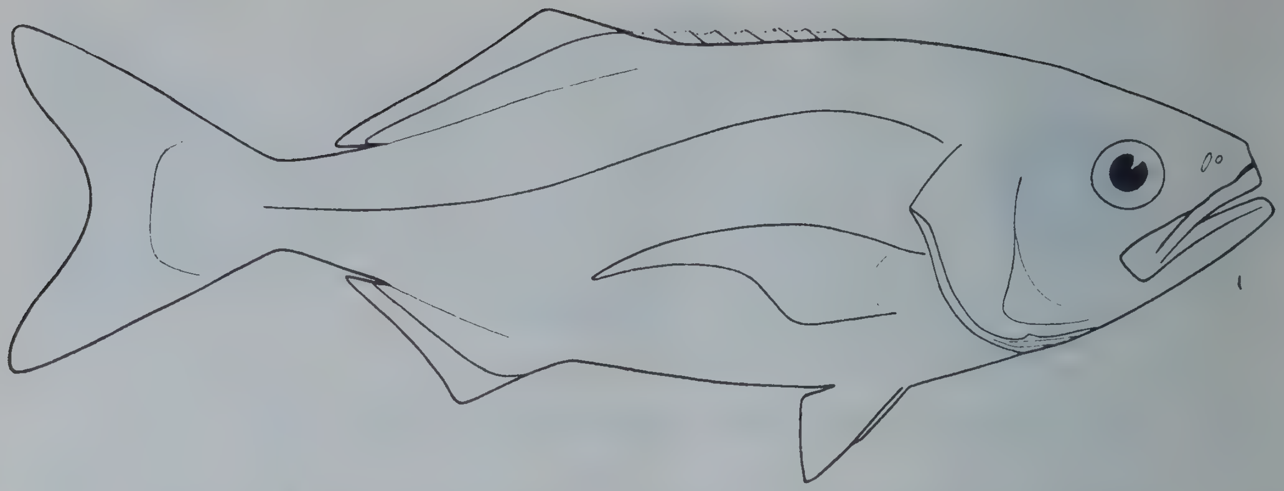

Fig. 15. *Seriolella antarctica.* Specimen from Tristan da Cunha, 75 cm long.

a scaly sheath. A III, 15. The spines are small and completely hidden in the skin, the soft rays considerably longer and as in the dorsal the basal part with a scaly sheath; length of anal 5, distance snout—vent 1⅔ in length of body. Pectoral long, pointed, falciform, 3¼ in length of body. Ventral I, 5, rather short, attached to the belly by a membrane; caudal deeply forked. Lateral line nearly parallel with the back, l. l. 90 l. tr. 18/37.

Length. The type specimen of Carmichael has a total length of 760 mm (30 inches), the specimen at hand 750 mm.

Colour. According to Carmichael (1818, p. 501) the colour of the type specimen is "dark blue above, silvery underneath". In our specimen the colour (in preserved state) is dark brown with a bluish hue on the head and back, lighter on the sides and greyish below.

TRISTAN DA CUNHA: March 1938. One specimen caught with hand-line outside the kelp zone, at a depth of about 40 meters.

Further distribution: This species is endemic to Tristan da Cunha.

I have with some doubt referred the specimen at hand to this species. Carmichael's original description (1818, p. 501) is not very complete, but in important characters such as the number of spines and rays in dorsal and anal fin his statements agree fairly well with the specimen at hand. Carmichael does not mention characters as size of head, diameter of eye and so on, and we cannot feel convinced that those characters as shown in his drawing of the species (Plate 25) are correctly reproduced. In fact, his figure is rather different from the drawing given here of the specimen at hand (fig. 15). At first sight our specimen is more like Sauvage's figure (1879, Plate I, 2) of *S. velaini,* but is easily distinguished from it by the shorter dorsal fin with fewer rays, as well as by the relatively larger head and eye.

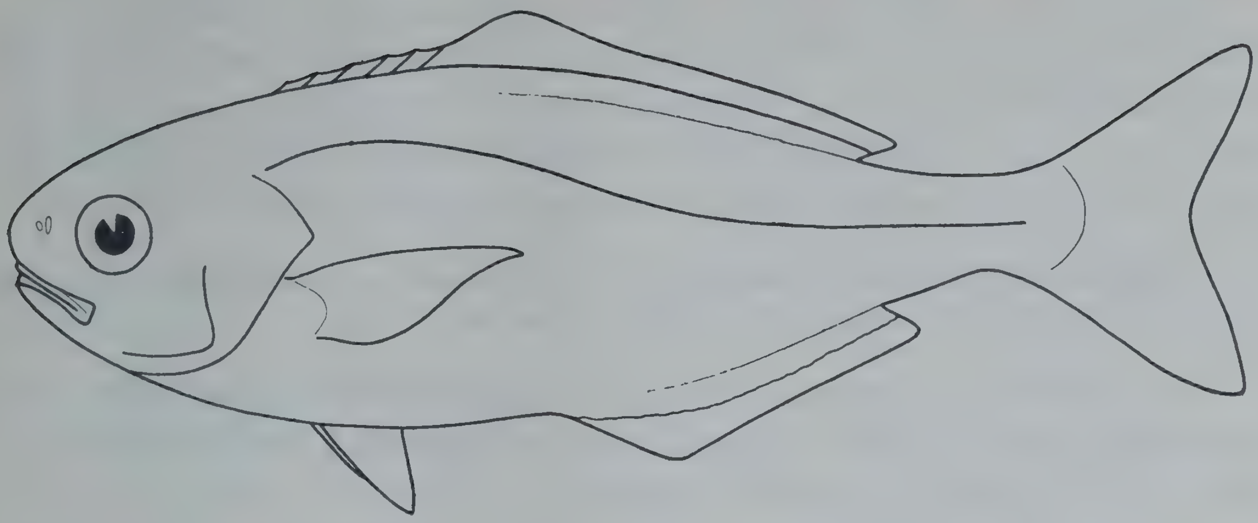

Fig. 16. *Seriolella Christopherseni* sp. nov., 58 cm long.

Seriolella Christopherseni sp. nov. — Fig. 16. Plate I, 3.

Description. Body oblong, somewhat depressed, the back in the region of spiny dorsal forming a backwards gradually increasing edge. Depth of body 3½ in total length, 3 in length of body; length of head 4 in total length, 3½ in length of body. Snout rather short, rounded, equal in length to the diameter of eye, 4 in length of head. Maxilla extending to the anterior third of eye, lower jaw a little shorter than upper, teeth in a single series, rather small. Nostrils situated about midway between eye and snout tip, the first small, rounded, the second somewhat larger, oblong. Diameter of eye 3⁹/₁₀ in length of head, 1¼ in interorbital width. Interorbital space and preopercle naked; cheek, interopercle, and opercle scaly. Posterior edge of preopercle emarginated, the angle rounded and finely crenulated. Number of branchiostegals 6.

D VI, 28. Spines of dorsal fin begins just ahead of the vertical from the base of pectoral, distance from snout tip to dorsal origin 3⅖ in length of body, length of dorsal fin 1⅘ in length of body; spines small and feeble and can be entirely hidden in a groove, soft rays considerably longer, with a scaly sheath at base. A III, 20. The spines are small and completely hidden, the soft rays considerably longer and with a scaly sheath at the base; length of anal 3⅙, distance snout—vent 1⁹/₁₀ in length of body. Pectoral elongate and pointed, 4 in length of body. Ventral I, 5, rather short, attached to the belly by a membrane; caudal deeply forked. Lateral line nearly parallel with the back.

Length. 580 mm.

Colour. As the single specimen was somewhat defect in having lost most of the scales, the colour could not be stated with certainty. In preserved state a dark brownish colour could be seen on the head and back, the sides being lighter and the belly greyish white. Dorsal and anal with a broad yellow band in the scaly part of the fin.

TRISTAN DA CUNHA: March 1938. One specimen caught with hand-line outside the kelp zone, at a depth of about 40 meters.

This species is nearly related to *S. velaini* Sauvage, but can easily be distinguished by the relatively smaller depth of body, the longer head, and the smaller eye and mouth.

This species is named in honour of the leader of the Norwegian Scientific Expedition to Tristan da Cunha, Dr. Erling Christophersen.

Zoogeographical Remarks.

The first record of fishes from Tristan da Cunha was given by Carmichael (1818) who described four species new to science:

Chaetodon monodactylus Carmichael (*Acantholatris monodactylus*)
Perca antarctica Carmichael (*Seriolella antarctica*)
Callionymus diacanthus Carmichael (*Bovichthys diacanthus*)
Labrus ornatus Carmichael (*Labrichthys ornatus*).

After that date we do not find the fish fauna of Tristan da Cunha mentioned until Barnard in 1927 published his Monograph of the Marine Fishes of South Africa. In this work Barnard holds, without further dates, that the following species have been caught at Tristan da Cunha.

Thyrsites atun (Euphrasen),
Sebastichthys capensis (Gmelin),
Congermuraena australis Barnard.

Finally Norman (1935) described a new species collected at Tristan da Cunha by the Discovery Expedition:

Decapterus longimanus Norman.

Thus the list of fishes recorded from Tristan da Cunha by the time The Norwegian Scientific Expedition arrived at the island included 8 species. All these species were caught by the latter expedition; in addition, there are 7 more species. Two of them are new to science:

Seriolella Christopherseni,
Helicolenus tristanensis,

and one species has been given a new name:

Gaidropsarus insularum.

The other 4 species new to the fauna of Tristan da Cunha are as follows:

Notopogon Lilliei Regan,
Scomberesox saurus (Walbaum),
Myctophum Humboldti (Risso),
Glyphis glaucus (Linné).

When we regard the fish fauna of Tristan da Cunha from a zoogeographical point of view, it is convenient to distinguish between oceanic fishes and coast fishes. To the former group the following four species may be reckoned:

A. *Oceanic Fishes.*

Glyphis glaucus,
Myctophum Humboldti,
Scomberesox saurus,
Thyrsites atun.

All these four species are common oceanic forms well known from different places in the Atlantic, the Pacific, as well as in Australian and New Zealand waters. From a zoogeographical point of view these widely distributed species are of less importance, and in the following discussion we shall therefore deal with the second group, the coast fishes only. They can suitably be divided into four groups.

B. *Coast Fishes.*

I. Species common to Tristan da Cunha, South Africa, and South Australia with New Zealand.

Notopogon Lilliei.

This species is caught once only at Tristan da Cunha and once at South Africa.

II. Species common to Tristan da Cunha and South Africa.

Sebastichthys capensis,
Congermuraena australis.

The first of these species is well known and common in Cape seas as well as at Tristan da Cunha (and Gough Island). The second one is more rare; if, as I suppose, it should prove to be a synonym for *C. habenata,* this group will contain one species only.

III. Species common to Tristan da Cunha and St. Paul.

Acantholatris monodactylus,
Labrichthys ornatus,
Gaidropsarus insularum.

The two first species are very common at Tristan da Cunha, the third one more rare and very difficult to catch.

IV. Species endemic to Tristan da Cunha.

Bovichthys diacanthus,
Decapterus longimanus,
Helicolenus tristanensis,
Seriolella antarctica,
Seriolella Christopherseni.

The three first species of this group are commonly caught by the fishermen, the two last ones more rarely.

From the grouping above it will be seen that the fourth group is the largest one, containing five different species. Remembering the isolated position of Tristan da Cunha, this is not astonishing.

However, the grouping reveals another interesting fact. The fish fauna at Tristan da Cunha has only two (one) species in common with South Africa, the nearest continent, about 1500 miles away, while it has three species in common with St. Paul, the small isolated island in the Indian Ocean about 4500 miles away. The relationship between these two islands goes still further, as four of the five species endemic to Tristan da Cunha have their nearest relatives at St. Paul. Thus *Bovichthys diacanthus* has its near relative *B. veneris* Sauv. at St. Paul, *Helicolenus tristanensis* has its near relative *H. Mouchezi* (Sauv.) there, and the two species of *Seriolella* also have their near relative *S. velaini* Sauv. at the same island.

Regan (1914) has defined three zones in the distribution of fishes south of the Tropical Zone, namely the South Temperate Zone, the Subantarctic Zone, and the Antarctic Zone. The boundaries between these zones are drawn along the mean annual surface isotherms of

6° C and 12° C and correspond fairly closely to the Antarctic and Subtropical Convergences as delimited by Deacon (1937). As seen from the map (fig. 17) Tristan da Cunha is situated in the South Temperate Zone near the Subtropical Convergence. In fact the position of this convergence, according to Deacon (1937, p. 59) is fluctuating, lying south of Tristan da Cunha in summer, and north of the island in winter.

During the stay of the Norwegian Scientific Expedition at Tristan da Cunha the surface temperature of the sea water was observed once a day in the period Dec. 18th, 1937—March 21st, 1938, and samples of sea water were collected for determination of the salinity. The main results of these observations will be seen from the following table (see also Christophersen and Schou, 1942, tables 4, 9, and 10):

	December		January		February		March	
	T. °C	S ‰	T. °C	S ‰	T. °C	S ‰	T. °C	S ‰
Lowest values observed ...	15.0	-	14.8	32.88	17.6	32.07	17.8	31.85
Average values	15.7	-	16.7	33.73	18.4	34.21	18.9	34.01
Highest values observed...	16.4	-	17.9	34.65	19.8	34.97	20.0	34.96

It may be of some interest to mention that at a hydrographical station near the shore where observations were taken on January 7th, 1938, from the surface down to a depth of 35 m (close to the bottom), the temperature was found to vary between 16.64 and 14.90° C, and the salinity between 34.79 and 34.96 ‰.

When we again look at the map (fig 17) it is easy to understand why Tristan da Cunha and St. Paul have so many species of coast fishes in common. Both of them are situated in nearly the same latitude, near the Subtropical Convergence, and both belong to one and the same zoogeographical zone. All the other islands in between, as Kerguelen, Crozet, Marion, and Bouvet are situated in the Subantarctic or Antarctic Zone with hydrographical conditions which are quite different from those of the South Temperate Zone. Thus, according to Regan (1914, p. 25), all these islands have a mean annual temperature of the surface water of 6° C or less.

It is not quite so easy to understand why Tristan da Cunha and South Africa have so few species of coast fishes in common. Both of them are situated in the Subtropical Zone, South Africa a little farther to the north, but the hydrographical conditions around Tristan da Cunha should be, as far as we know, very like those along the south western coast of South Africa. However, there may be some unknown factor making conditions of life for certain species different in the two places mentioned. — In this connection it may be of interest to remember that Tristan da Cunha has no species of coast fishes in common with South America, though the Brazil current running eastward should favour the transport of fish eggs and larvae from South America to Tristan da Cunha.

In conclusion it may be stated that of all the fifteen species of fishes known from Tristan da Cunha, the oceanic ones inclusive, seven are recorded from South Africa, four from the South American region, five from Australia and New Zealand, and four (or five) from St. Paul.

Notes on the Fishery at Tristan da Cunha.

The fishery at Tristan da Cunha is of very great importance to the Tristanites, as fish, besides potatoes, is the main food of the population. Nearly every day, when the weather permits, one or more boats are out fishing, and if the weather is too bad, as it often is even in the summer time, the inhabitants sometimes try to catch fish from the shore. The fishing tackle is very simple, as hand-lines only are used. The lines are baited either with pieces of fish of different kinds, or with cuttlefish, the latter being regarded as the best bait.

The Tristan names of the different kinds of fish caught are as follows:

Shark — *Glyphis glaucus*
Fivefinger — *Acantholatris monodactylus*
Snoek — *Thyrsites atun*
Mackerel — *Decapterus longimanus*
Soldier — *Sebastichthys capensis* and *Helicolenus tristanensis*
Klipfish — *Bovichthys diacanthus*
Concha (conger) — *Labrichthys ornatus*
Bluefish — *Seriolella antarctica*
Stumpnose — *Seriolella Christopherseni*
Steambras — ?
Yellowtail — ?

Of the last two species no specimens were caught during our stay on the islands, and I was thus unable to identify them. Yellowtail, the Tristanites told us, is very like a fivefinger. Further they informed us that steambras was for the first time caught at the island in the year 1933. Last year (1936) 10 specimens of this species were

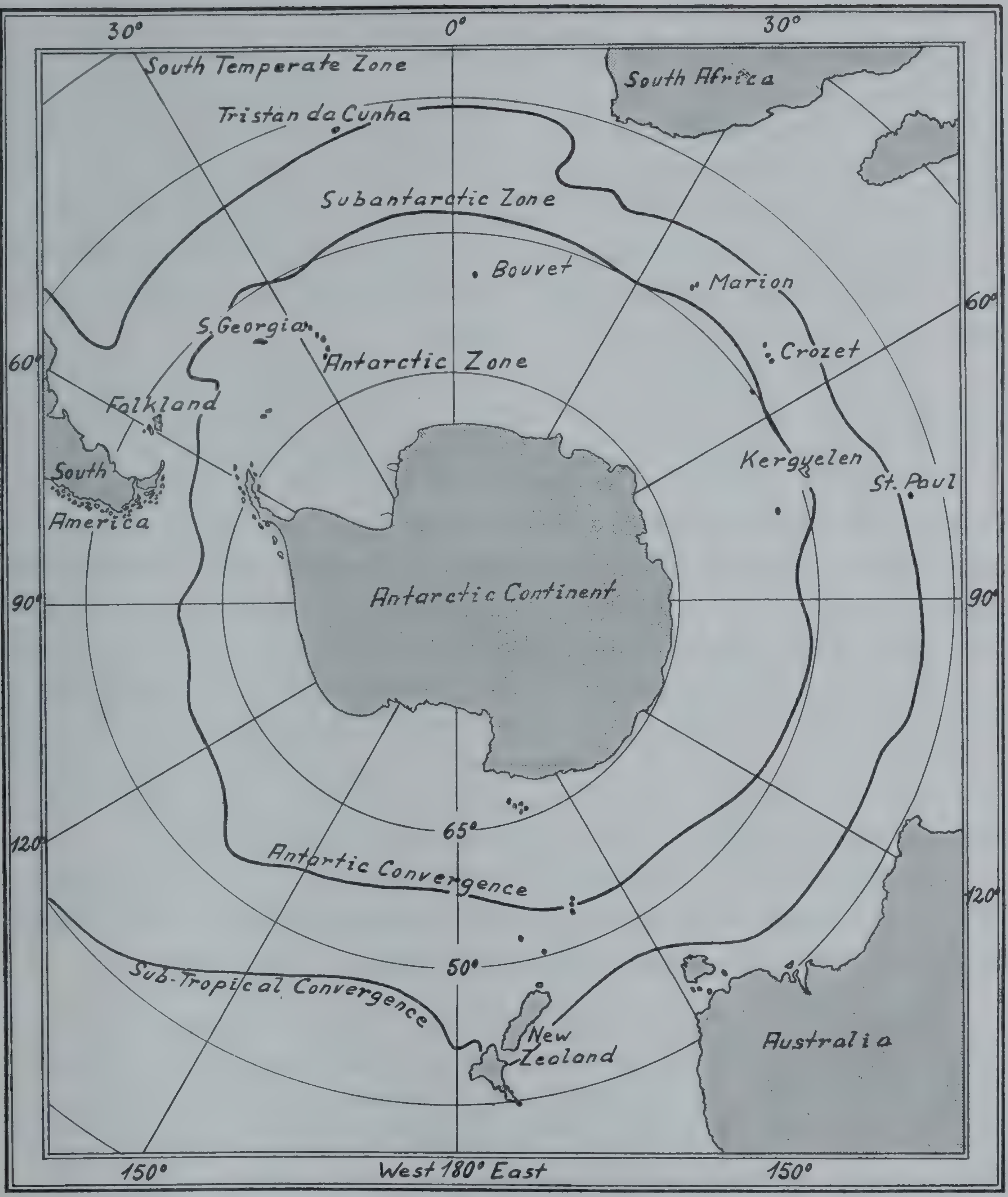
30°
0°
30°
South Temperate Zone
Tristan da Cunha
South Africa
Subantarctic Zone
Bouvet
Marion
S. Georgia
Antarctic Zone
Crozet
60°
60°
Falkland
South America
Kerguelen
St. Paul
Antarctic Continent
90°
90°
120°
65°
Antartic Convergence
120°
50°
Sub-Tropical Convergence
New Zealand
Australia
150°
West 180° East
150°

Fig. 17. The three southern zoogeographical zones limited by the antarctic and subtropical convergences (redrawn after Deacon).

caught in the winter time, at a depth of about 150 m. It is a very big fish, which can be nearly as long as a shark (the only shark we caught during our stay at the island was about 2½ m long, but the steambras "is much broader and has soft rays in the fins").

All the other 9 common names were identified as seen from the list above. In one case only the Tristanites confuse two different species by calling both of them soldier. However, *S. capensis* and *H. tristanensis* are, especially in fresh state, very like each other, and it was first by closer examination that I could separate the two species myself.

Concha is the common name of the beautiful coloured male of *L. ornatus*, while the more evenly coloured female was called conger and was regarded as a different species.

Five of the fishes caught by the expedition at Tristan da Cunha (not mentioned in the list above) seem to be so rare that the Tristanites have no common name for them or do not know them at all.

The most common fish caught by the Tristanites is the fivefinger. It is taken all the year near the bottom from a few meters depth down to about 50 m, generally in company with specimens of the soldier. The mackerel, however, and especially the snoek are very often caught near the surface. The bluefish and the stumpnose are caught at depths of about 100 m, mainly in winter. In summer these species are rarely caught, apparently they then live in deeper water. The concha, the conger, and the klipfish live just off the shore or in shore ponds and are, like the shark, without any importance to the Tristanites as articles of food.

To get an idea of how much fish and what kind of fish the Tristanites usually catch in the summer time, I counted a few catches brought ashore by the boats. Below I give the results of this count.

January 24th, 1938. A couple of boats were out fishing in the forenoon. One of them made an especially good catch in getting 70 snoeks, 25 fivefingers, and 20 crayfishes. The catches of the other boats were considerably less. The size of the snoek varied from 88 to 115 cm, with a weight of resp. 3 and 6.3 kg.

March 15th. 3 boats were out fishing for about 5 hours.

Boat 1. Four fishermen. The fish were said not to rise freely.

52 fivefingers	with a	weight of	18.5 kg
2 snoeks	—	—	11.5 »
1 mackerel	—	—	1.3 »
55 fish	with a total	weight of	31.3 kg

One of the snoeks had a length of 128 cm and a weight of 7.5 kg and was the largest specimen I ever observed of that species.

Boat 2. Three fishermen. The fish were said not to rise freely.

96 fivefingers	with a weight of	36.0 kg
3 snoeks	— —	10.8 »
3 mackerels	— —	4.7 »
1 soldier	— —	0.6 »
103 fish	with a total weight of	52.1 kg

Boat 3. Four fishermen. The fish were said to rise freely.

116 fivefingers	with a weight of	92.0 kg
8 snoeks	— —	18.0 »
7 mackerels	— —	9.5 »
6 soldiers	— —	2.5 »
137 fish	with a total weight of	122.0 kg

The largest specimen of the fivefingers had a length of 64 cm with a weight of 4.2 kg, and was the largest one I ever observed.

March 19th. Two boats were out fishing for about 5 hours.

Boat 4. Five fishermen. The fish were said not to rise freely.

101 fivefingers	with a weight of	32.2 kg
1 snoek	— —	3.1 »
2 mackerels	— —	3.4 »
104 fish	with a total weight of	38.7 kg

Boat 5. Four fishermen. The fish were said to rise fairly freely.

114 fivefingers	with a weight of	67.1 kg
2 mackerels	— —	4.3 »
116 fish	with a total weight of	71.4 kg

March 23rd. One boat out fishing for 5 hours.

Boat 6. Five fishermen. The fish rose fairly freely.

126 fivefingers	with a weight of	69.0 kg
3 snoeks	— —	12.9 »
129 fish	with a total weight of	81.9 kg

If we now compare the results, it is astonishing to see how much the catches vary from one boat to the other. When calculating how much fish each man caught per hour, we shall find the following values:

Boat 1, 1.6 kg; Boat 2, 3.5 kg; Boat 3, 6.1 kg; Boat 4, 1.5 kg; Boat 5, 3.6 kg; Boat 6, 3.4 kg.

When the fish did not rise freely, the fishermen not only got fewer fish, but the size of the fish was said to be smaller. In the catches referred to above this assertion seems to hold good, at least as regards the fivefinger, where the material is large enough to allow a comparison. The average weight of the fivefinger in the catches from boat 1, 2, and 4, when the fish were said not to rise freely, was thus 0.36 kg, 0.38 kg, and 0.32 kg; for boat 5 and 6 when the fish rose fairly freely the average weight was 0.59 kg and 0.55 kg; and for boat 3 when the fish rose freely, the average weight of the fivefinger was as high as 0.79 kg.

As we have seen, the fivefingers largely dominate the catches in summer. Sometimes, however, lots of snoeks may be caught, as was the case in the catch from January 24th. According to the information given by the Tristanites they get more fish in the winter but, as they say, that is mainly due to the larger number of big bluefish caught during that season. The fivefingers caught are said to correspond in number and size nearly to those caught in the summer.

In order to catch some fish, both for investigation and for eating, the members of the expedition tried fishing tackle as hand-lines, long lines, and nets. It was found that the nets were most handy and that they gave the best catches in the shortest time. Below is given the results of the catches recorded. In all of them one and the same net, a so-called "trollgarn" was used.

Trial 1. December 23rd, 1937. "Trollgarn" off Little Beach, depth 5—10 m, duration 2 hours. Catch: 59 fivefingers, 4 soldiers, total weight of the fish 13 kg, mean size of the fivefinger 24.1 cm, 186 g.

Trial 2. December 27th, 1937. "Trollgarn" farther out off Little Beach, depth 25—30 m, duration 2 hours. Catch: 24 fivefingers, 4 soldiers, total weight of the fish 7 kg, mean size of the fivefinger 25.9 cm, 219 g.

Trial 3. December 30th, 1937. "Trollgarn" off Sandy Point, depth 10—15 m, duration 4 hours. Catch: 15 fivefingers, total weight of the fish 8 kg, mean size of the fivefinger 32.8 cm, 535 g.

Trial 4. January 1st, 1938, "Trollgarn" at Seal Bay, depth 10—12 m, duration 4 hours. Catch: 14 fivefingers, total weight of the fish 6.8 kg, mean size of the fivefinger 34.4 cm, 547 g.

Trial 5. March 9th, 1938. "Trollgarn" off Little Beach, depth about 40 m, duration 1½ hours. Catch: 70 fivefingers, 2 soldiers, total weight of the fish 16 kg, mean size of the fivefinger 25.2 cm, 214 g.

Trial 6. March 21st, 1938. "Trollgarn" off Little Beach, depth 7—10 m, duration 3 hours. Catch: 32 fivefingers, total weight of the fish 5.3 kg, mean size of the fivefinger 23.2 cm, 167 g.

The material recorded is of course too small for any discussion in detail, but some facts are evident. Two species of fish only are caught in the net, viz. fivefinger and soldier, the former greatly dominating in number. (A number of large langusts, *Palinurus,* called crayfish by the Tristanites, was also caught in the net, but are not taken into consideration here, where we are dealing with fish only.) Further it is seen that, when comparing the trials 1, 2, 5, and 6, which are all from the area Little Beach, the mean size of the fivefinger in shallow water (trial 1 and 6) is considerably smaller (mean weight 167 and 186 g) than in deeper water (trial 2 and 5, mean weight 214 and 219 g). Such a distribution of the smaller and larger specimens in conformity with varying depths of the water, is well known from other species too. In trial 3 and 4, however, in spite of the fact that these catches were taken from shallow water, the mean size of the fivefinger is very large (mean weight 535 and 547 g), much larger even than the specimens from deeper water in trial 2 and 5. The most probable explanation is that this difference is due to the intense fishing of the Tristanites off Little Beach, while they very rarely were out fishing at Sandy Point or Seal Bay (trial 3 and 4).

As seen from the catches of the fishermen previously recorded, the mean size of the fivefinger caught by hand-lines is considerably larger than for those caught in our "trollgarn". Fishing with hand-lines thus seems to be a more rational way of fishing as a relatively larger number of old and more grown-up specimens is caught when using that fishing-gear.

Age Determination of Fish.

In order to get some idea of the age and growth of the fish at Tristan da Cunha, samples of scales of different kinds of fish were collected. The fivefinger was, as mentioned, the fish most commonly caught, and our samples of scales of this species are therefore most complete. As the scales of the fivefinger were found by closer examination to be especially well fit for age determination, this species will be more closely dealt with in the following, while from some of the other species a few examples only are given to show the type of the scales.

Acantholatris monodactylus.

(Fivefinger.)

The material at hand contains scales of 190 fivefingers. The length and weight of the fishes as well as the sex are seen from the table below.

Table 1.

Length and weight of the fivefinger.

Sex	Number of specimens	Length (cm)			Weight (g)		
		min.	mean	max.	min.	mean	max.
Male	101	18	25.6	39	46	231	790
Female	86	20	30.1	50	98	437	2150
Juvenile	3	15	16.3	18	46	64	77

It is seen from the table that the females are considerably longer and heavier than the males. This point, however, will be more closely treated later on.

At first I tried, by using the statistic method of measuring the length of the fish ("measuring method of Petersen") to get some idea of the age of the fivefinger. However, that method did not work well. That is easily understood as the age determination based on scale readings showed that the fivefinger is a relatively slow-growing fish with a wide range of variation as regards the length of the fish in each year-class. As the limits of variation in one year-class greatly overlap the limits of variation in the two neighbouring ones, all traces of any year-grouping, when we make use of the statistic measuring-method, are concealed.

The age determination of the fivefinger based on scale readings met with some difficulties. From the sides of the hind part of the body of each fish scales in a number varying from about 50 up to 100 or more were taken. However, in spite of the large number of scales examined, I found by closer examination, that in a great many samples all scales were useless for the determination of age. In some cases I even examined nearly all scales on the fish without finding a single one serviceable. Neither growth rings nor year-zones were found on these scales, or perhaps only some few zones in the extreme part of the scales. Of the 190 scale samples examined 31 had to be rejected as completely inserviceable. Further, in an additional 38 samples all the common scales were also unserviceable, but here the scales from the lateral line were found to be fit for age determination even if the zones in these scales were not always very distinct. The type of a common scale is shown on plate II, 1, and that from the lateral line of the same fish on plate II, 2.

The common scale of the fivefinger has a distinct central plate, where the growth stripes (ridges) as seen on the figure (plate II, 1) are distinctly prominent as dark, nearly straight, transverse lines. In the foremost part of the central plate the lines are thinner and more widely separated than in the hind part of the plate, the foremost part thus appearing much lighter and more transparent. The outer part of the scale differs from the central plate in having curved, horseshoe-shaped growth-stripes in the oral part of the scale. The caudal outer part of the scale consists of a thin lamella only, which is often lost during preparation, and in which the growth-stripes disappear. It is thus the oral part of the scale only which is used for age determination.

Unfortunately, no specimen of the youngest year class was found in the material at hand. For that reason the zone-formation in the scale during the first year could not be followed or determined with certainty. However, by comparison with other fishes, which have about the same type of scales, for instance *Abramis brama*, it is seen that the central plate corresponds to the first year of growth, and that the distinctly marked border of the central plate may be regarded as the first winter ring.

If we again look at the scale (plate II, 1) which is taken from the smallest fish in our collection (total length 15.2 cm), we shall find that about midway from the central plate a distinct, dark ring breaks the thin, close growth-stripes. This ring I have interpreted as the second winter ring. In the outermost part of the scale a broader, more diffuse, dark ring or zone is seen. However, this ring must, as we shall see later on, be regarded as a false winter ring. Only the narrow, distinctly marked rings which really break the growth-stripes are in the following regarded as true winter rings. The scale mentioned thus belongs, according to my interpretation, to a fish in its third year.

A scale from the lateral line (l. l.) of the same fish is shown in plate II, 2. The bent tube is very dominating, occupying nearly the whole central part of the l. l. scale, corresponding to the central plate of a common scale. The border of the central plate, i. e. the first winter ring, is thus not easy to recognize on the l. l. scale, while the second winter ring is very distinct. The agreement of the winter rings in common scales and l. l. scales was found to hold good for all specimens in which the number of winter rings could be ascertained.

In plate III scales from a fish in its fourth year are shown. In fig. 1 is shown a scale of the common type, with especially distinct winter rings. In fig. 2 is shown a scale of an irregular type sometimes found. The central plate differs from the common type in having concentric, not transverse growth-stripes, and in being less distinctly marked off from the outer part of the scale.

In plate IV scales from two different specimens of the fivefinger are shown, both of them in their sixth year. However, the scale in IV, 1 is from a fish caught December 23rd, 1937, that is early in the summer, while the other (IV, 2) was caught 2½ months later, March 9th, 1938. This difference in time is distinctly reflected in the scales too. In 1 the fifth winter ring thus lies near the border of the scale with only about 7 growth-stripes outside, while in 2 there is a much broader zone with about 25 growth-stripes between the fifth winter ring and the border of the scale. That indicates, as was naturally to be expected, that the growth of the scale takes place mainly in the summer months.

In plate V scales from a fish in its 10th year is shown. The winter rings are very distinct in the common scale as well as in the l. l. scale, and the agreement in age determination of the two types of scales is easily ascertained.

Finally, in plate I, fig. 4 part of a scale from a fivefinger in its 15th year is shown. This scale was one of the oldest in which I was able to read the age with certainty. Very often in scales older than about 10 years it was hard to state the exact age of the fish, owing to the difficulty of defining true and false winter rings. However, difficulties in reading old scales are well known from most of the species of fish in which age determinations based on scale readings have been undertaken. I shall not deal further with the question here, but only refer to the very interesting paper by Segerstråle (1932), in which he mentions that the winter rings in the scales of *Abramis brama* were usually well separated and easy to read. Some years, however, the growth of the fish was so poor and the winter rings were lying so close together that it was quite impossible to read the scale in the right way without the aid of additional information.

Of course, such a thorough investigation as that by Segerstråle cannot be carried out with our material of the fivefinger, the samples of which were all collected during a short period of a single year only. However, with reservations for such mistakes or wrong readings we shall in the following see what our age determinations disclose about the age and growth of the fivefinger.

As seen from table 2, the size of the fish is increasing fairly evenly from a mean length of 16.7 cm at the age of 2 years to 47 cm at the age of 20 years. The rate of growth is nearly the same in males and females for the years where the number of specimens is large enough to allow a comparison. However, an important difference between the two sexes is found. The oldest male is only 12 years old with a length of 39 cm, while the oldest female in this material has reached an age of 20 years and a length of 47 cm. Thus, the female both grows older and to a much larger size than the male, a fact known also from many other species, e. g. the eel (*Anguilla vulgaris*). Among the 31 samples of the fivefinger where no determination of age could be carried out, a corresponding difference in size of the fish was found, the largest male being 32 cm — 390 g, and the largest female 50 cm — 2150 g.

Following the method of Lea (1910) I have made a calculation of the length of the fish at various ages, based on the measurement of the distance between the winter rings in the scales. For that purpose 17 scale samples were chosen, 9 males and 8 females, in which the winter rings were especially distinct and thus well fit for measurement. In table 3 are given the values obtained in this way for the calculated length of the fish in each year, and, for the sake of comparison, the empiric values for the corresponding classes (see table 2).

As will be seen, both the calculated and the empiric values are gradually rising from the 2nd to the 9th year, but for each year the empiric values are somewhat higher than the calculated ones. That is, however, easy to explain if we remember that the calculated values give the length of the fish exactly at the time when the winter ring was formed, while the empiric values give the length of the fish at the time it was caught; as that was in the summer time, the fish had grown more or less after the formation of the last winter ring. The fairly good agreement between the calculated and the empiric values suggest that a simple correlation exists between the growth of the scale and the growth of the fish. In spite of the relatively small number of samples examined, the results obtained seem to give us a fairly correct picture of the age and growth of the fivefinger from the waters around Tristan da Cunha.

Table 2. *Age (number of winter rings)*

Age / Length cm	2	3		4		5		6		7		8		9	
		♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
15	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
21	-	-	-	2	2	8	2	-	-	-	-	-	-	-	-
22	-	1	-	3	1	3	2	3	2	-	1	-	-	-	-
23	-	-	-	-	1	3	6	4	2	-	-	-	-	-	-
24	-	-	-	2	-	6	1	5	6	-	1	-	-	-	-
25	-	-	-	-	-	2	2	2	2	2	-	2	-	-	-
26	-	-	-	-	-	2	2	2	3	4	-	-	-	-	-
27	-	-	-	-	-	1	-	5	2	2	1	-	-	-	-
28	-	-	-	-	-	-	-	1	-	1	2	-	-	-	-
29	-	-	-	-	-	-	-	-	1	-	-	4	2	-	-
30	-	-	-	-	-	-	-	-	-	1	1	1	-	1	-
31	-	-	-	-	-	-	-	-	-	1	1	-	-	2	-
32	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number	3	3	-	7	5	25	15	22	18	11	7	8	3	4	4
Mean length (cm)	16.7	19.2	-	22.3	21.4	23.1	23.3	24.7	24.7	27	27.2	28.5	30	31	32.7
Mean weight (g)	62	97	-	139	122	161	165	196	204	261	269	276	383	375	420

Sebastichthys capensis.

(Soldier.)

The scales of the soldier are of another type than those of the fivefinger. They belong to the ctenoid type, which has spines along the caudal border of the scale, in contrast to the cycloid type with a smooth border of the scale, as we have seen in the scales of the fivefinger.

The material for age determination of the soldier is very scanty, consisting only of 9 scale samples. Furthermore, the scales are diffi-

and growth of the fivefinger.

10		11		12		13		14		15		16		17		18		19		20	
♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	2	1	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
1	3	3	-	2	1	-	5	-	3	-	1	-	3	-	-	-	-	-	1	-	1
32	36	35	-	39	39	-	-	-	39	-	40	-	42.3	-	-	-	-	-	45	-	47
390	567	523	-	790	650	-	745	-	880	-	970	-	1002	-	-	-	-	-	1200	-	1380

cult to read as the year zones are very faintly marked, as seen from plate VI, 1—2. In the common scale of a soldier (VI, 1) it is very difficult to decide what are real winter rings and what are false ones. In the l. l. scale of the same fish (VI, 2), however, 5 winter rings may, with more or less certainty, be defined. It is not neccessary here to give a closer description of the scales of the soldier. I shall only refer the reader to the description of the scales of the fivefinger, as the formation of year zones in these scales are somewhat the same as in the scales of the soldier.

Table 3.

Comparison between calculated and empiric values for length in different year classes of the fivefinger.

Number of winter rings		II	III	IV	V	VI	VII	VIII	IX
Calculated values	Number of specimens	17	17	16	12	7	3	1	1
	Mean length	12.8	17.4	19.9	21.8	23.8	25.0	28.2	29 5
Empiric values	Number of specimens	3	3	12	40	40	18	11	8
	Mean length	16.7	19.2	21.9	23.2	24.7	27.1	29.0	31.9

I have made an attempt to determine the age of the fish in the 9 scale samples mentioned, and have arrived at the values given in table 4.

Table 4.

Size and age of the soldier.

Scale sample no.	1	2	3	4	5	6	7	8	9
Length of the fish (cm)	17	21.7	23.8	24	24.6	26.5	26.8	32	37
Weight of the fish (g) .	77	165	245	225	285	305	375	600	855
Number of winter rings	2	3	4	4	5	5	5	8	10

As seen from table 4, our material contains fish with 2 to 10 winter rings in the scales, i. e. fish in their 3rd to 11th year of age. When comparing this table with table 2 (p. 38) we find that the soldier grows somewhat more slowly than the fivefinger; the difference, however, is not great. This conformity in the growth of the two species, as well as the fairly even growth of the soldier (table 4), seems to indicate that, in spite of the quite insufficient number of scale samples, our age determination of the soldier may be rather correct. However, the conclusions arrived at must be regarded as preliminary only, and need further verification based on larger material.

Helicolenus tristanensis.

The scales of this species are of the same type as those of the soldier, and the year zones are likewise difficult to read. Furthermore, as the material at hand consists only of 3 scales samples, taken from fishes of nearly the same size, it is impossible with any degree of certainty to carry out age determinations. However, as *H. tristanensis* is a species new to science, it may be of some interest to reproduce a photograph of a common scale and of a l. l. scale of this species (plate VI, 3—4).

Labrichthys ornatus.

(Concha.)

The scale material for age determination of the concha is very small, consisting of 6 samples only. In addition, it was very difficult to find suitable scales in the samples, most of the common scales being without any traces of year zones. In fact, only the sample from the smallest fish (length 11.8 cm) contained some serviceable common scales, besides a single serviceable common scale (plate VII, 1) in the sample from the largest fish (length 18 cm). Otherwise, the scales from the lateral line (plate VII, 2) only could be used for age determination.

The supposed winter rings in the scales of the concha bear some resemblance to the winter rings in the scales of the fivefinger, but they are less distinctly marked. Frequently incomplete rings occur, which must probably be regarded as false winter rings. With all reservations I shall below give the values arrived at for 4 of the samples at hand, the two remaining samples being quite unserviceable.

Table 5.

Size and age of the concha.

Scale sample no.	1	2	3	4
Length of the fish (cm)	11.8	15.0	17.0	18.0
Weight of the fish (g)	20	30	52	60
Sex	♀	♀	♂	♀
Number of winter rings	5	8—9	10	13

If the age determination shown in table 5 is fairly correct, it tells us that the concha is very slow growing compared with the species treated before in this paper. This is, however, not astonishing in view of the fact that the concha never seems to attain such a size as the other species mentioned.

Decapterus longimanus.

(Mackerel.)

Of this species I have scale samples only from 5 large specimens. It is thus impossible by means of this material to follow the formation of year zones from the younger year classes and upward. The scales have an appearance reminding one of the scales of *Osmerus eperlanus*, and the supposed winter rings are fairly distinct. The type of the scale will be seen from plate VII, 3, a scale from a mackerel 46 cm in length. Four winter rings are here easily seen, perhaps with a 5th near the border of the scale. The supposed age of the 5 specimens will be seen from table 6.

Table 6.

Size and age of the mackerel.

Scale sample no.	1	2	3	4	5
Length of the fish (cm).........	43	46	47	60	62
Weight of the fish (g)..........	900	910	1000	1830	2270
Number of winter rings........	4	4 (5)	5	8—9	9

If this interpretation of the age of the mackerel is correct, the values in the table show us that the mackerel is very rapid growing. A comparison between this table and table 2 shows that, while the mackerel attains a length of 43 cm already in its 5th year, the fivefinger needs 16 years to attain the same length.

Seriolella antarctica and S. Christopherseni.

As I have only one large specimen of each species at hand, and the supposed year zones in the scales are fairly indistinct, it is very difficult to try any determination of age. I shall therefore confine myself to show the types of a common scale and a l. l. scale from each species (plate VIII, 1—4), which may be of some interest, as *S. Christopherseni* is new to science and the specimen of *S. antarctica* at hand is the first one recorded since the type specimen was described in 1818.

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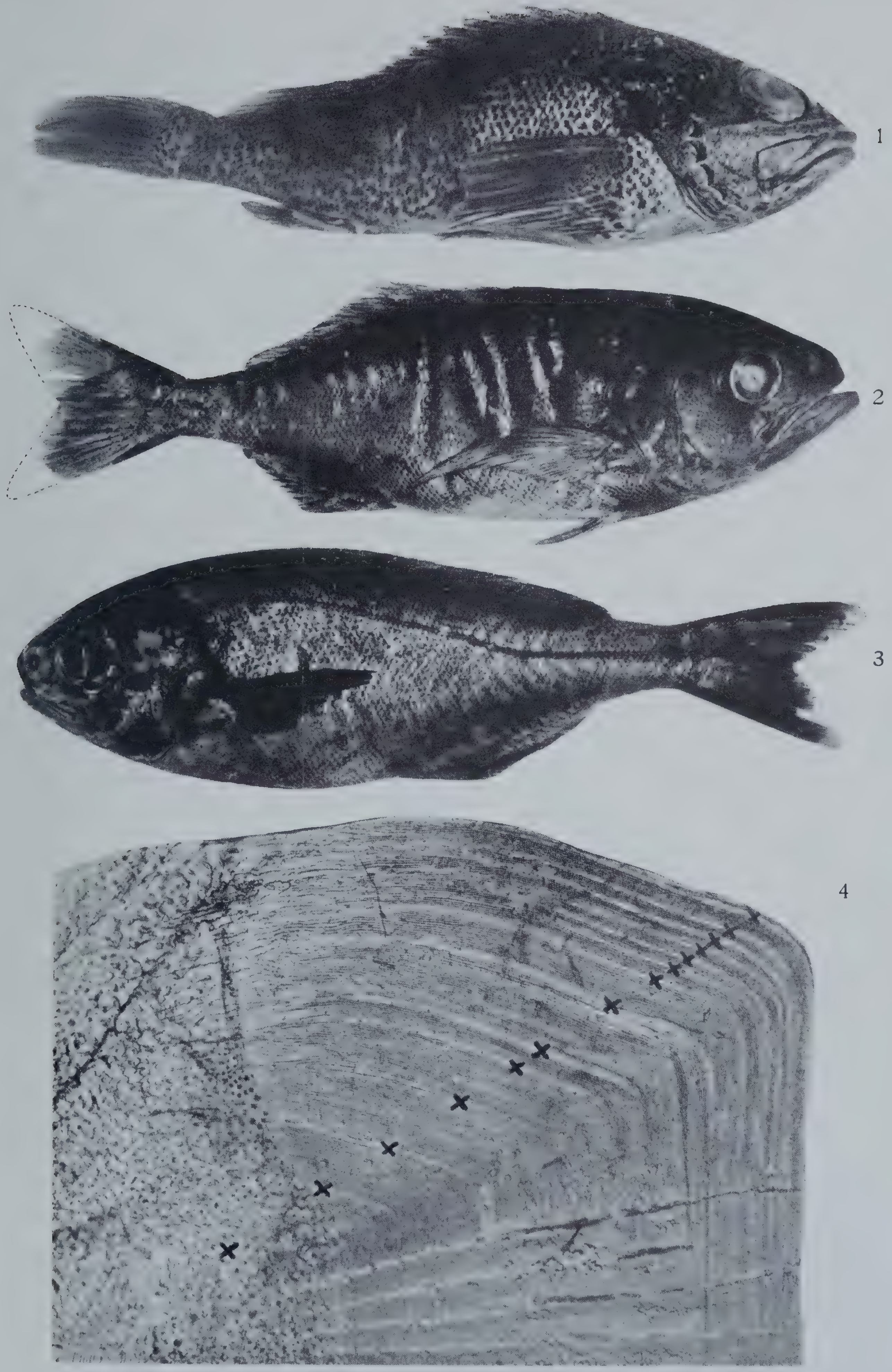
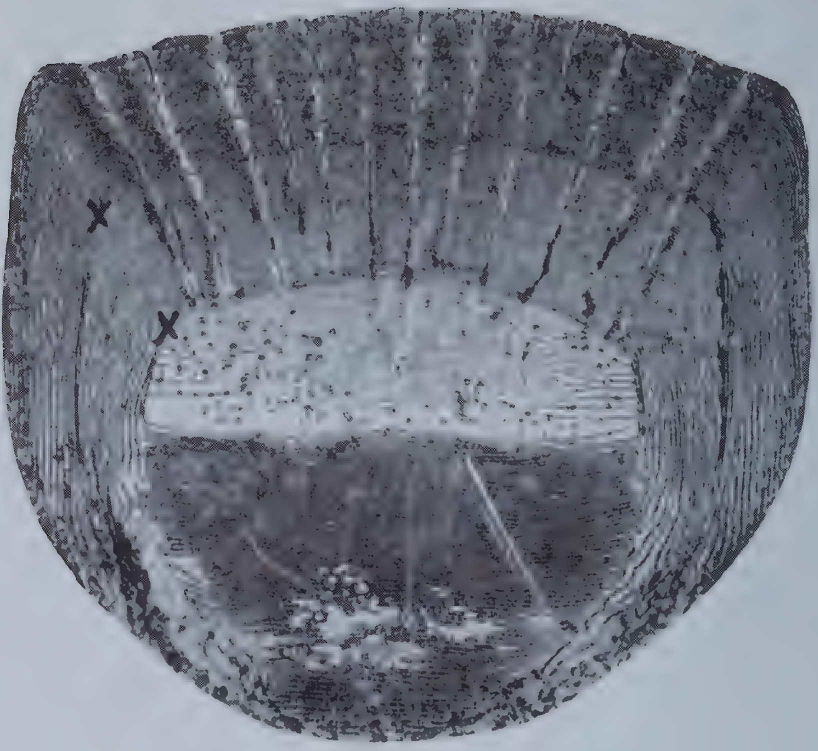


1. *Helicolenus tristanensis*, about × 1/3. — 2. *Seriolella antarctica*, about × 1/7. 3. *Seriolella Christopherseni* about × 1/5. — 4. *Acantholatris monodactylus*, female, 39 cm, 920 g. December 15th, 1937. Part of common scale with 14 winter rings, × 15.

1



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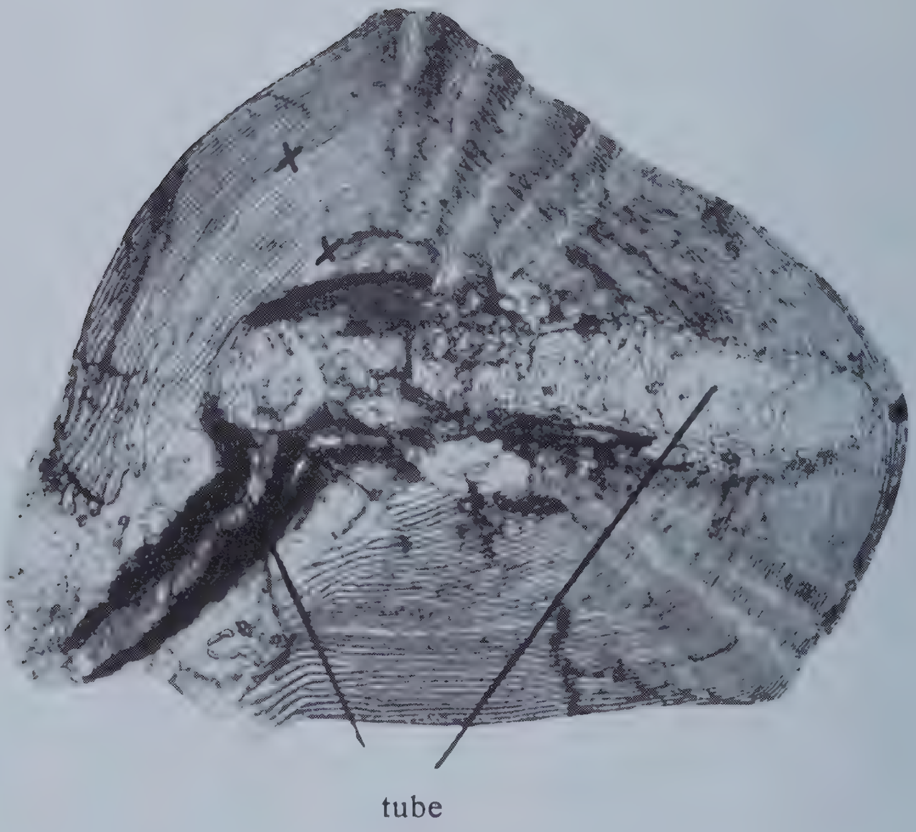
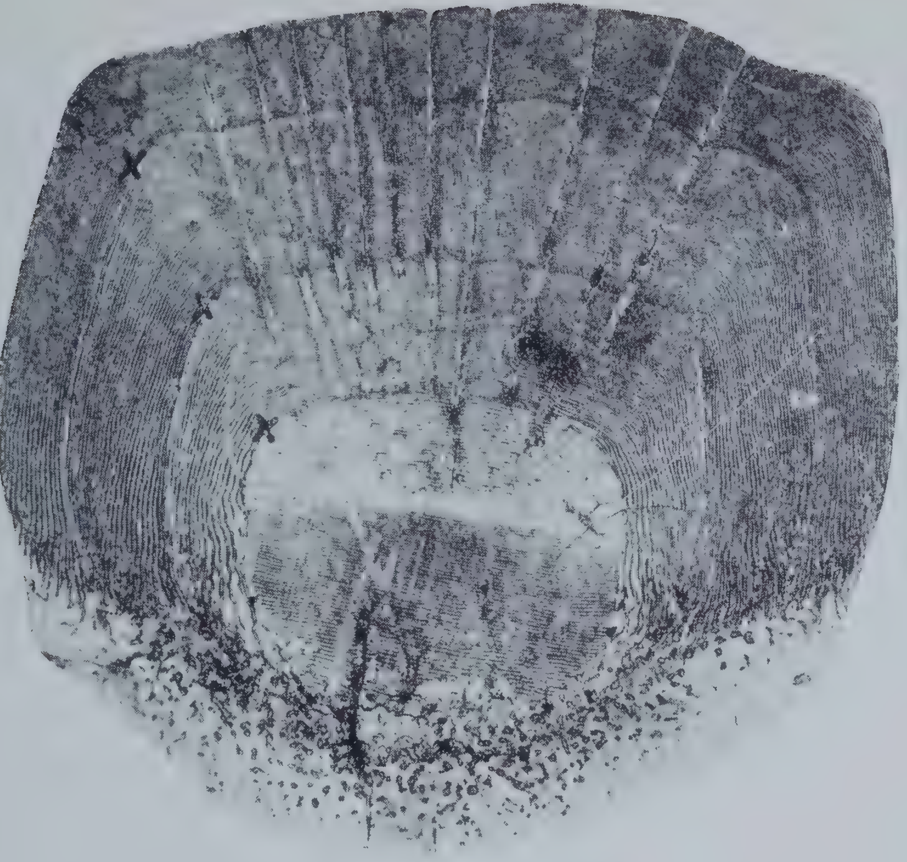


Acantholatris monodactylus, 15.2 cm, 46 g. March 8th, 1938. Scales with 2 winter rings.

1. Common scale, × 19.
2. Lateral Line scale, ×26.



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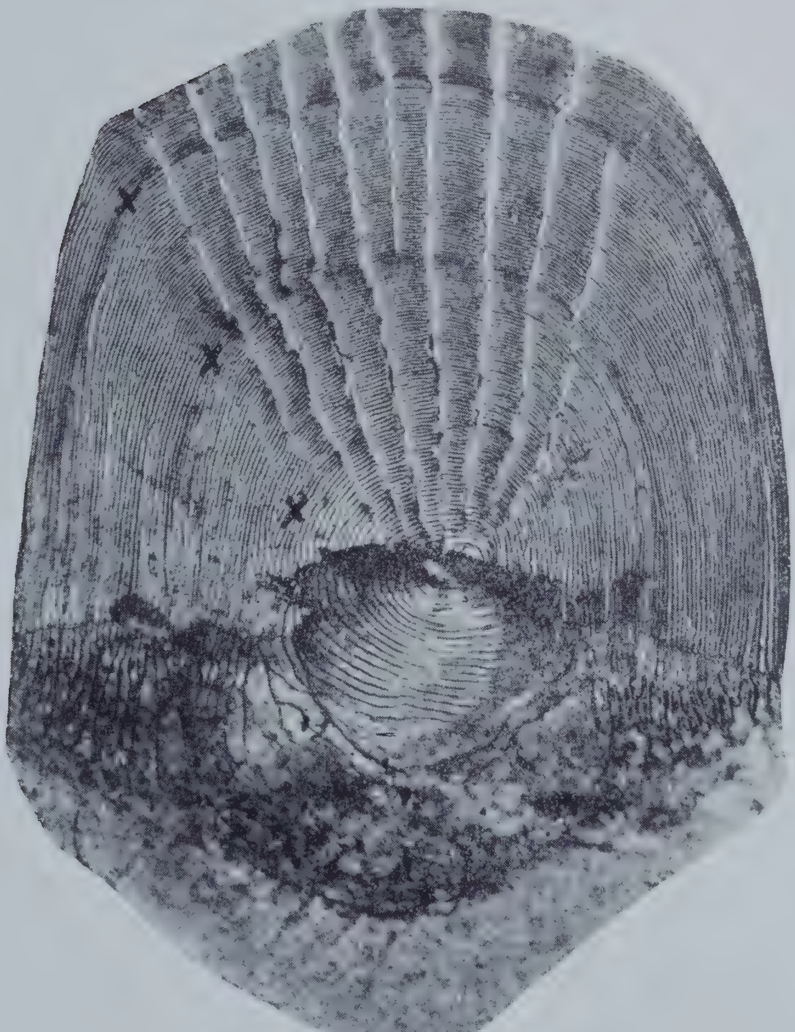
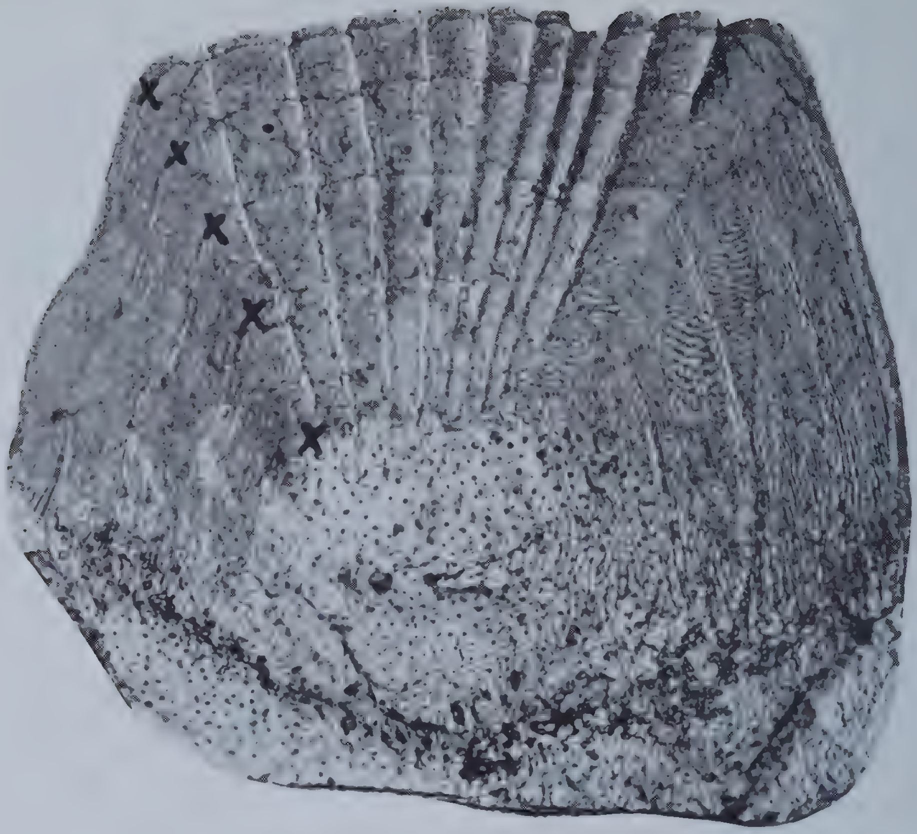


2

Acantholatris monodactylus, male, 22 cm, 145 g. March 3rd, 1938. Scales with 3 winter rings.

1. Common scale, normal type, × 17.
2. Common scale, irregular type, × 22.

1



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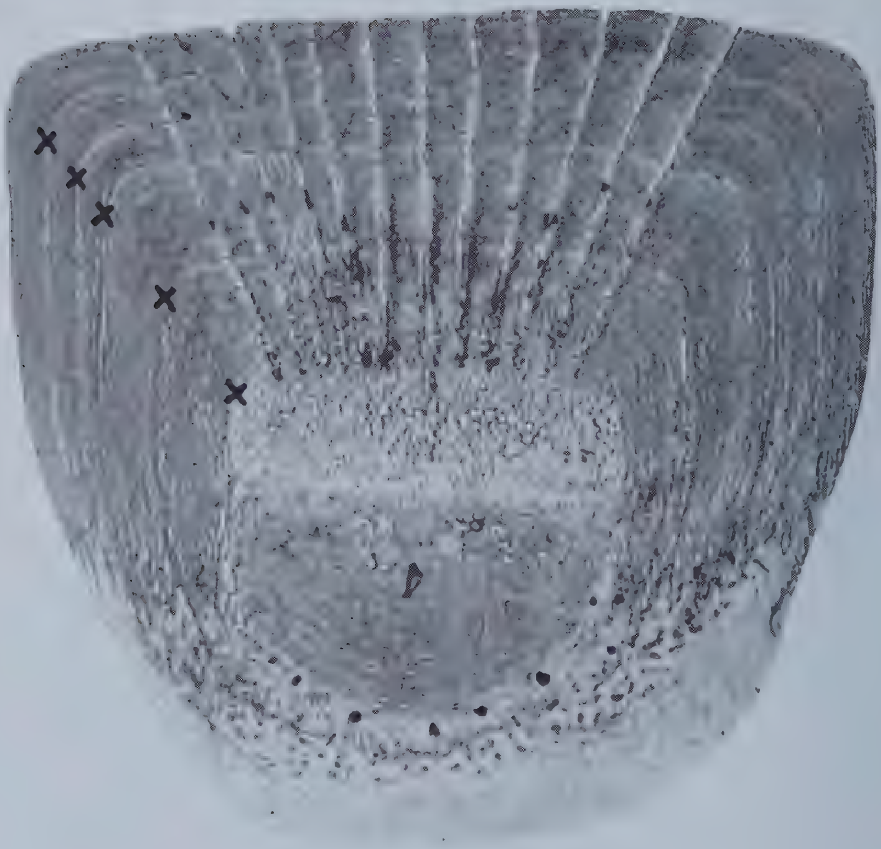
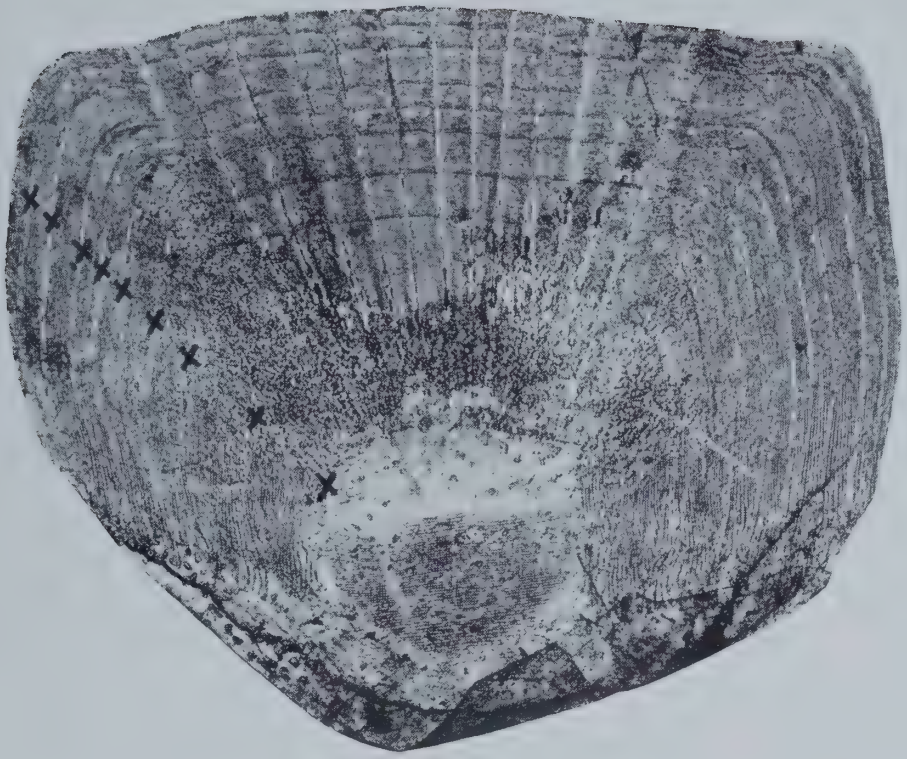
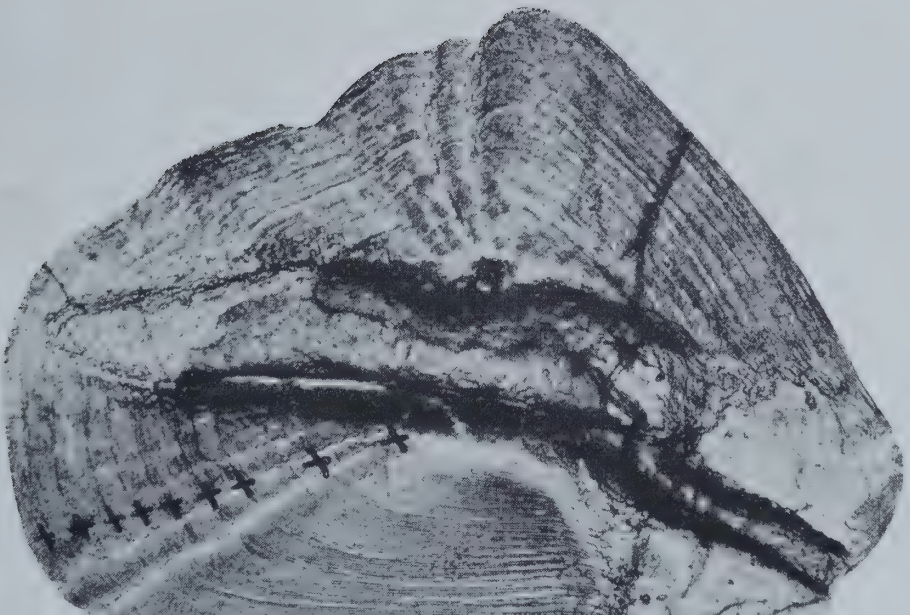


Acantholatris monodactylus. Two scales with 5 winter rings, from different times in the summer.

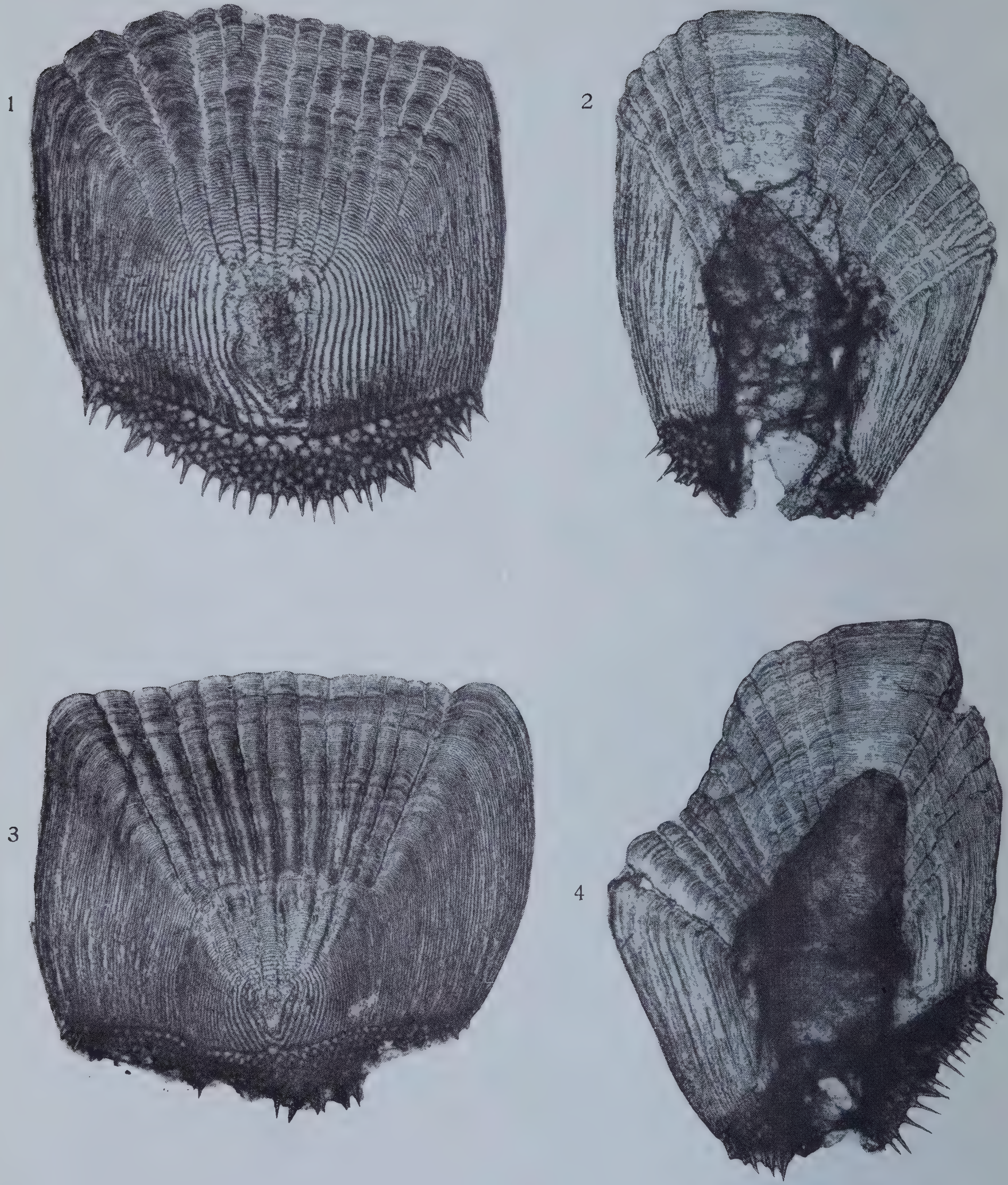
1. Common scale, female, 26 cm, 250 g. Dec. 23rd, 1937, × 17.
2. Common scale, male, 21 cm, 135 g. March 9th, 1938, × 17.





Acantholatris monodactylus, male. 31 cm, 340 g. January 4th, 1938. Scales with 9 winter rings.

1. Common scale, × 11.
2. Lateral line scale, × 15.



1. *Sebastichthys capensis,* 26.5 cm, 305 g. Dec. 23rd, 1937. Common scale, × 22.
2. — — — — Lateral line scale, × 17.
3. *Helicolenus tristanensis*, 24 cm, 215 g. March 29th, 1938. Common scale, × 17.
4. — — — — Lateral line scale, × 15.

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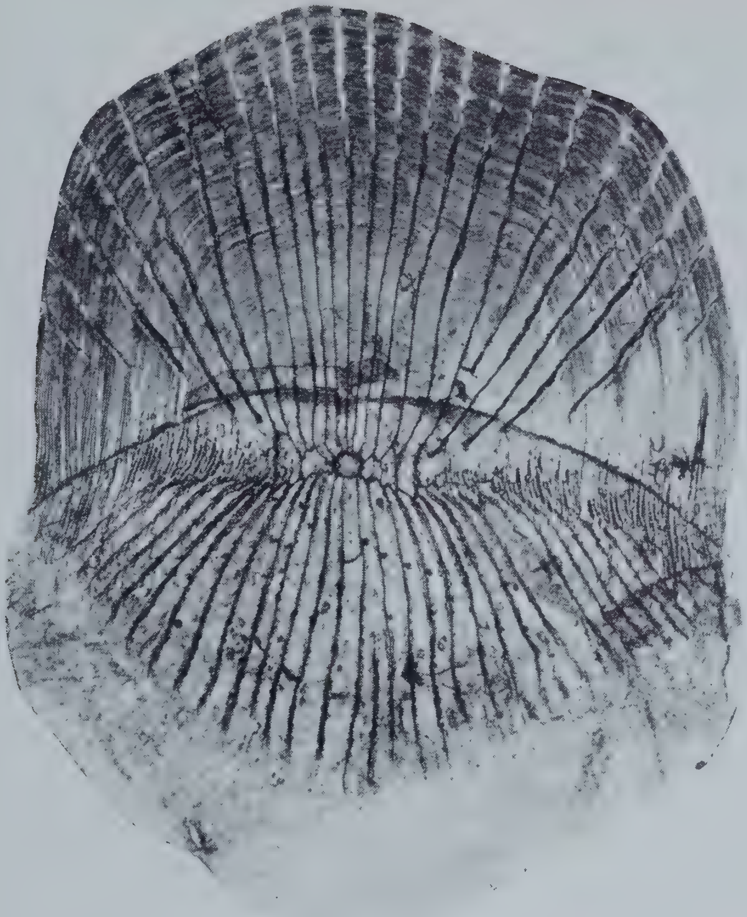

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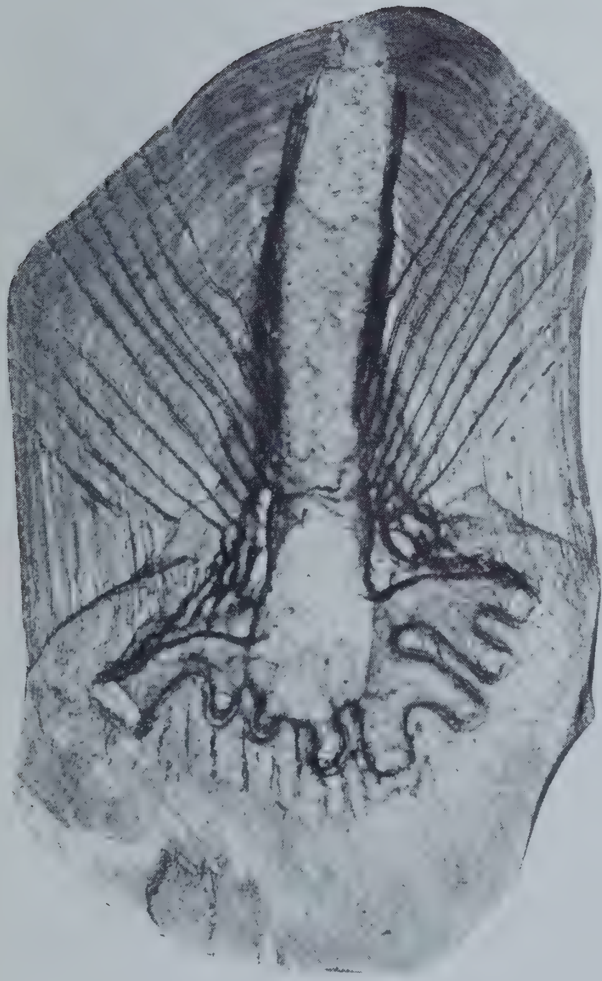

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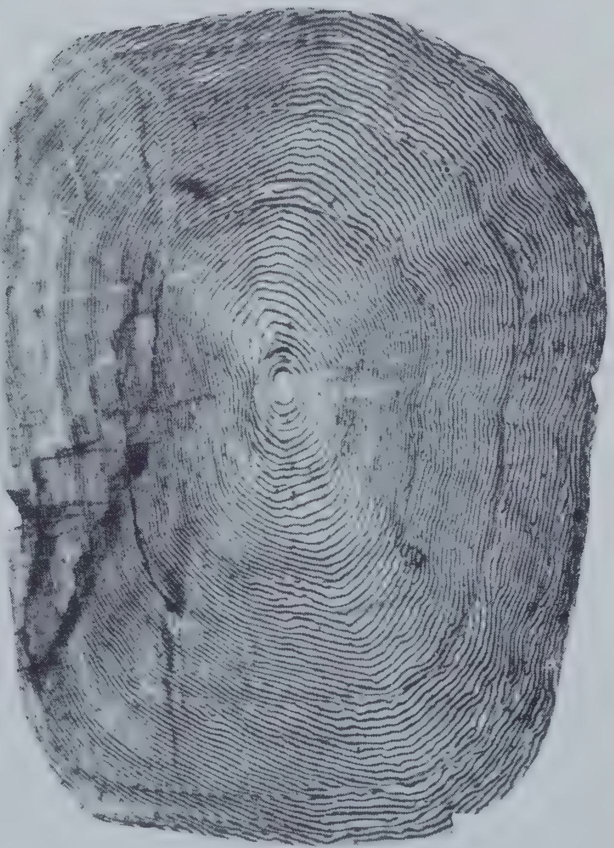
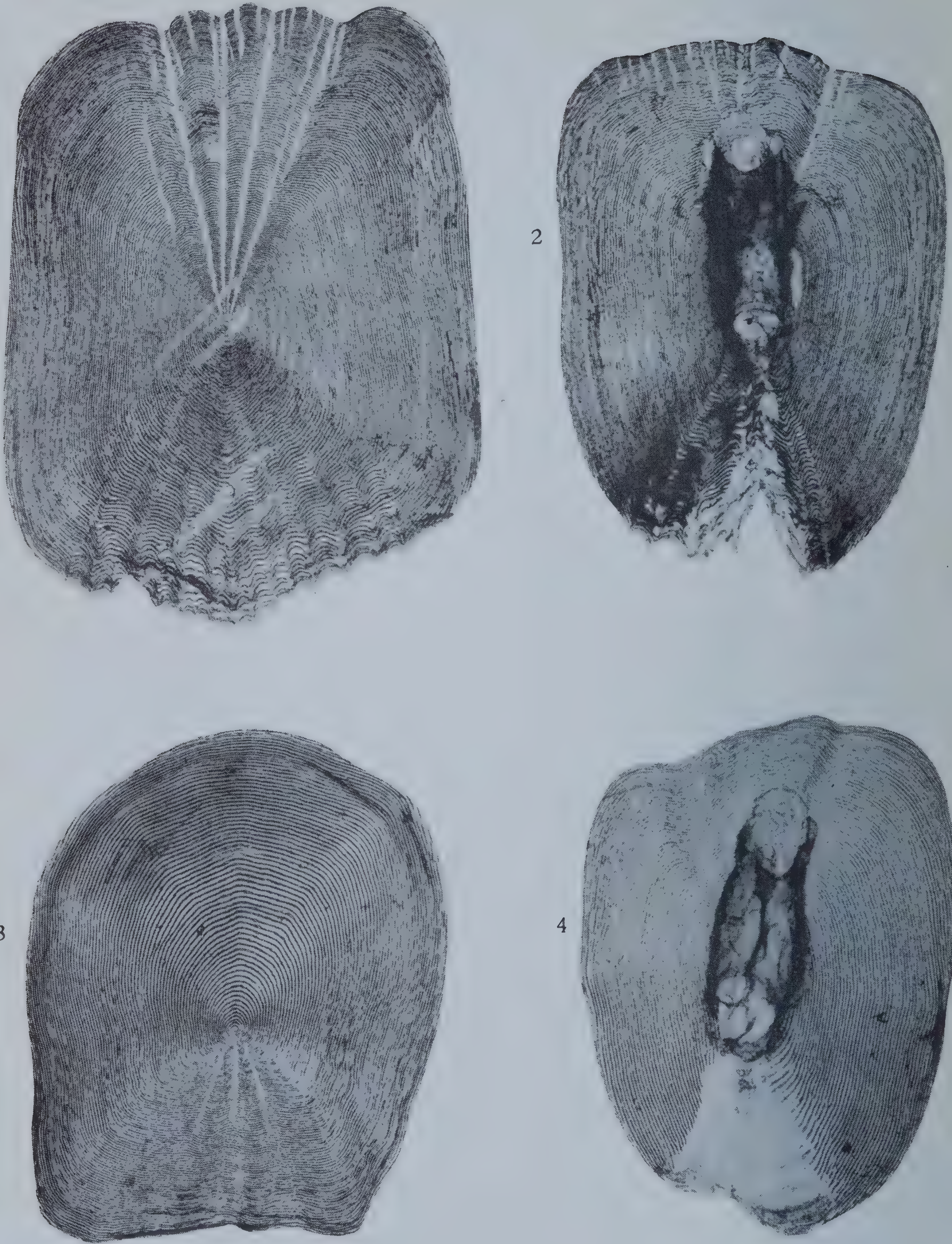


1. *Labrichtys ornatus*, female, 18 cm, 60 g. March 23rd, 1938. Common scale, × 11.
2. — — — — Lateral line scale, × 11.
3. *Decapterus longimanus*, 46 cm, 910 g. March 8th, 1938. Common scale, × 19.



1. *Seriolella antarctica*, 75 cm. 6200 g. March, 1938. Common scale, × 7.
2. — — — — Lateral line scale, × 7.
3. *Seriolella Christopherseni*, 58 cm. 2900 g. March, 1938. Common scale, × 8.
4. — — — — Lateral line scale, × 10.

SOCIOLOGY OF TRISTAN DA CUNHA

BY

PETER A. MUNCH

Preface.

The present study was concluded in November 1943, but the publication of the report has been delayed til now by circumstances beyond the author's control.

The material on which the following report is based, was collected by the writer during his stay on Tristan as a member of the Norwegian Scientific Expedition to Tristan da Cunha 1937—1938. Approximately 3½ months were spent there in field work. The methods used in collecting the facts were interviews and direct observation. The main stress was laid on observation, from the consideration that I wanted to get a true picture of the actual behaviour of these people in their social relationships rather than of their confessed motives and patterns of behaviour. Thereby I even tried to play the rôle of a "participant observer" whenever there was an opportunity, taking part in the islanders' work and play, and, on the whole, sharing their daily life. However, it is evident that this method, employed within a so limited space of time, would leave many lacunæ, and these had to be filled through interviews. In this respect I had a good help in the islanders' openness and liberal attitude towards foreigners, which enabled me to collect a great deal of reliable information in a comparatively short period.

Of the many islanders whom I interviewed I should like to mention Alice Swain, Frances Repetto, Bob Glass, and Sidney Glass. These were my chief informants and gave me valuable information about the social life in Tristan, past and present. Alice Swain, in particular, took a keen and intelligent interest in my work, and was always anxious to give me unvarnished and reliable information.

The author wishes to express his most sincere gratitude to Dr. Erling Christophersen, the leader of the expedition and the editor of the present series of results, for comradeship and excellent leadership during the expedition, as well as for the keen and never failing interest that he took in this sociological work, which has been a great encouragement to the author. During my involuntary absence he attended to my interests in an excellent way and, together with my wife, Mrs. Helene Munch, made the MS ready for the press. I also wish to thank the other members of the expedition for splendid comradeship throughout the course of the expedition. Special thanks are due to our two medical men, Dr. Sverre Dick Henriksen and Per Oeding, and to the dentist, Reidar F. Sognnæs, for excellent and fruitful co-operation.

The plans for the present investigation were worked out in collaboration with Dr. Arvid Brodersen, and the author wishes to express his sincere thanks to him for the valuable assistance thus rendered. I am also indebted to Professor Alf Sommerfelt, who always took great interest in my work and has contributed valuable suggestions. Much to my regret a further co-operation with him was prevented by the war. For valuable advice and suggestions in connection with the planned intelligence testing I wish to express my thanks to Professor Helga Eng.

Thanks are also due to Professors Olaf Broch, Georg Morgenstierne, and Christian S. Stang for the highly appreciated interest that they took in this work, and to which they gave expression by word and deed.

Last but not last: the author wishes to express his thanks to Professor B. Malinowski, who has likewise — through Dr. Christophersen — contributed highly appreciated suggestions for the planning of the present investigation, and from whose scientific work the writer has received valuable impulses.

The working up of the following report was made possible by grants from Fridtjof Nansens Fond, from Det Videnskapelige Forskningsfond av 1919, and from Instituttet for Sammenlignende Kulturforskning.

Oslo, November 1944.

The author.

I. Environment, History, and Demography.

1. The Islands.

The Tristan da Cunha Group is situated in the middle of the South Atlantic Ocean, just south of the 37th degree of latitude, and approximately 12° W of Greenwich. The group is composed of five small islands of volcanic origin, but there has been no volcanic activity during historic times.

This group of islands is certainly one of the most remote inhabited places on earth. In all directions it is surrounded by the open sea. The nearest inhabited place is St. Helena which is 2400 km distant. The distance to the nearest mainland, The Cape of Good Hope, is about 2900 km, and to the nearest point on the South American mainland, Cape Frio, it is about 3200 km. And besides these immense distances to other lands and countries, with nothing but the open sea between them, the position of this group of islands, out of all ordinary trade routes, renders it a most isolated place also from a traffic point of view. The islanders are always on the lookout for ships and, if the weather permits, let no ship pass without putting out in their sailing boats to hail her. Yet, in this way they communicate with an average of no more than 3 or 4 ships yearly.

Only one of the islands is inhabited by man. This is the most northerly and the main island in the group. It bears the same name as the group itself, or is shortly called Tristan. Situated to the SW, distant about 40 km, are the two smaller islands Inaccessible and Nightingale, with a distance *inter se* of about 20 km. And close to Nightingale, on its north side, are the two small islets, Stoltenhoff and Middle Island. The islanders' names for the latter two are Stockenbird and Alex Island respectively.

The main island consists of a single huge volcanic cone, with a diameter at sea level of 11—12 km, and rising more than 2000 m out of the water. The coastline is almost a regular circle, with no firths or inlets, and hardly a bay that could render a somewhat sheltered harbour

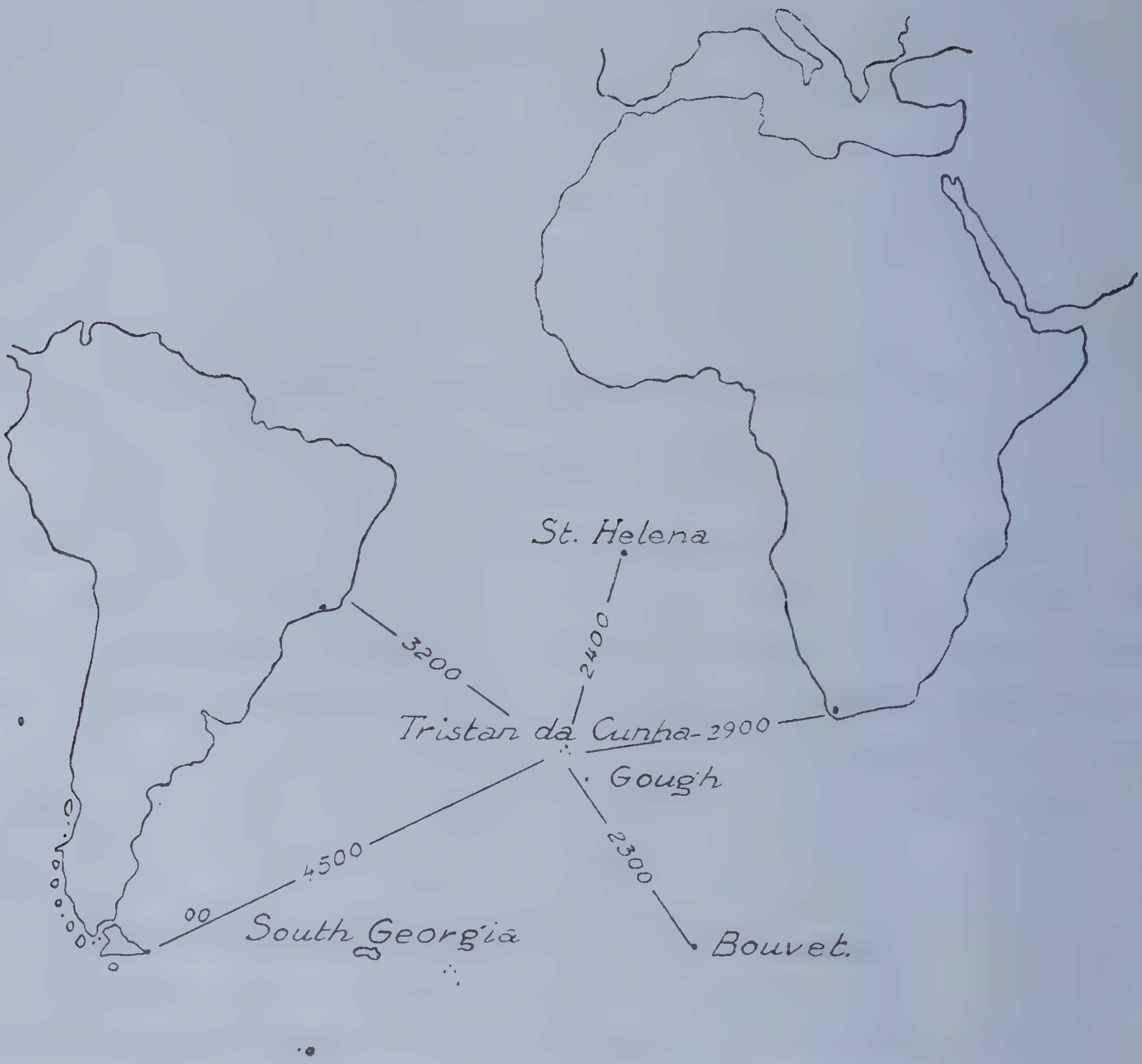
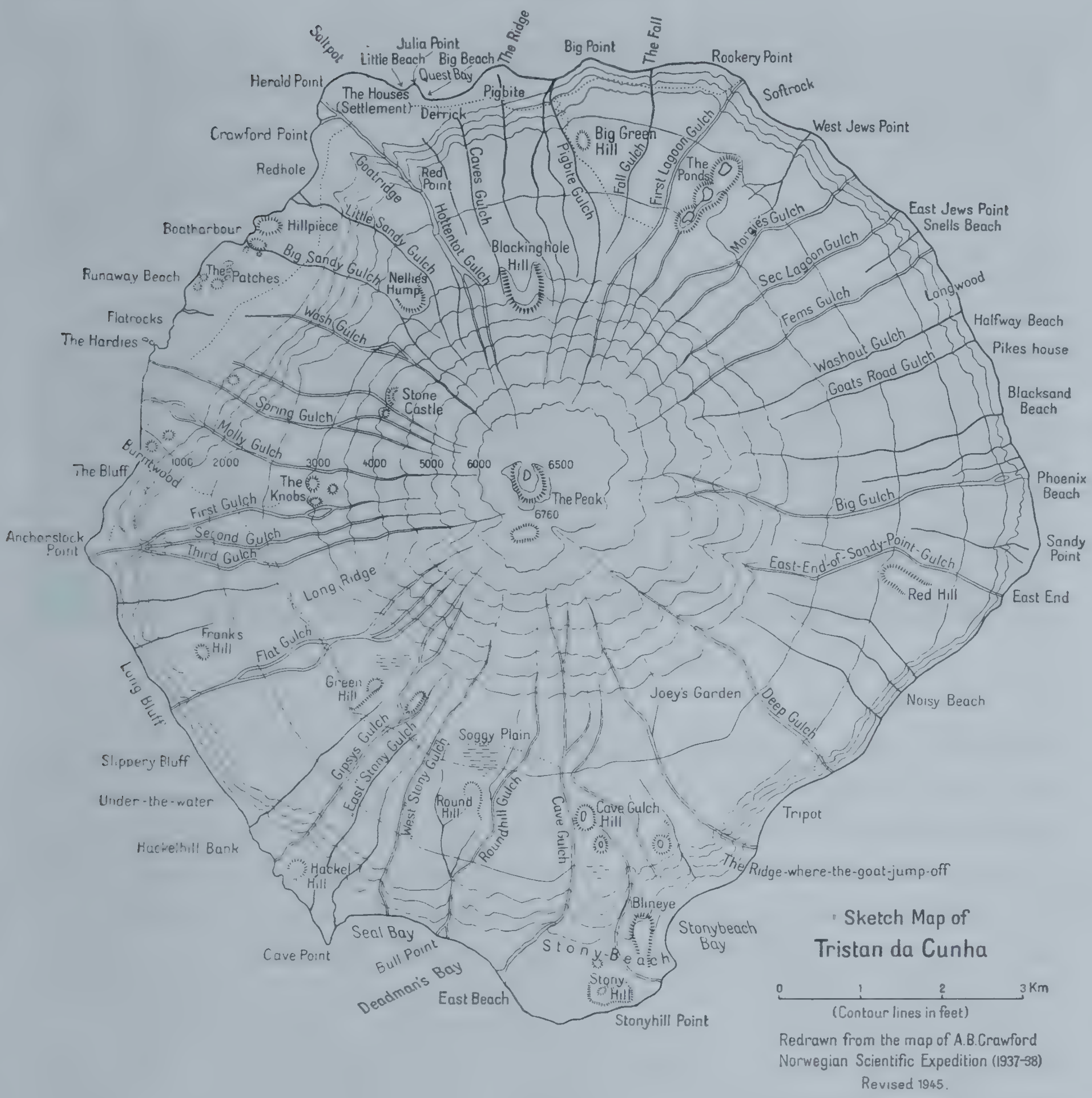


Fig. 1. Sketch map showing position of the Tristan da Cunha group. Distances in kilometres.

even for small craft. From a narrow beach the hill-side rises almost perpendicularly to a height of 300—850 m. In some places the beachline is interrupted by precipitous bluffs, the cliffs rising sheer out of the water, not permitting a passage except perhaps in very smooth weather. Above these cliffs is a plateau, called The Base by the islanders, which stretches inland for two or three kilometres, until it gradually turns into steep cinder slopes leading up to The Peak, where there is a crater and a small lake. Scattered on the surface of the cone are several small craters many of which have lakes in them.

From The Peak, a great many deep canyon-like ravines radiate to the sea. These ravines, or gulches, as the islanders call them, have almost vertical sides and give the island a most wild appearance. Most of them are dry except after heavy rainfalls, when they lead great torrents, bringing masses of earth, gravel, and stones from the hill-side into the sea.


Sketch Map of Tristan da Cunha

Redrawn from the map of A.B.Crawford Norwegian Scientific Expedition (1937–38) Revised 1945.

Saltpot
Julia Point
Little Beach
Big Beach
Quest Bay
The Ridge
Big Point
The Fall
Rookery Point
Softrock
Herald Point
The Houses (Settlement)
Derrick
Pigbite
West Jews Point
Crawford Point
Redhole
Goatridge
Red Point
Caves Gulch
Big Green Hill
Pigbite Gulch
Fall Gulch
First Lagoon Gulch
The Ponds
Hottentot Gulch
Boatharbour
Hillpiece
Little Sandy Gulch
Blackinghole Hill
Morris Gulch
East Jews Point
Snells Beach
Runaway Beach
The Patches
Big Sandy Gulch
Nellies Hump
Sec Lagoon Gulch
Longwood
Flatrocks
The Hardies
Wash Gulch
Fems Gulch
Halfway Beach
Pikes house
Washout Gulch
Goats Road Gulch
Blacksand Beach
Stone Castle
Spring Gulch
Molly Gulch
Burntwood
The Bluff
1000
2000
3000
4000
5000
6000
6500
The Peak
6760
The Knobs
Phoenix Beach
Big Gulch
First Gulch
Second Gulch
Third Gulch
Anchorstock Point
Sandy Point
East-End-of-Sandy-Point-Gulch
Red Hill
East End
Long Ridge
Franks Hill
Flat Gulch
Long Bluff
Green Hill
Joey's Garden
Deep Gulch
Noisy Beach
Soggy Plain
Slippery Bluff
Gipsys Gulch
East Stony Gulch
West Stony Gulch
Round Hill
Roundhill Gulch
Cave Gulch
Cave Gulch Hill
Under-the-water
Tripot
Hackelhill Bank
Hackel Hill
The Ridge-where-the-goat-jump-off
Blineye
Stonybeach Bay
Seal Bay
Bull Point
Deadman's Bay
Cave Point
East Beach
Stony Beach
Stony Hill
Stonyhill Point
0
1
2
3 Km
(Contour lines in feet)

Fig. 2.

Situated on the north-west side of the island is an old lava plain which, from the bottom of the cliffs, slopes gently down towards the sea, until it is suddenly cut off and ends in a fall, 30—60 m high, unto the beach. The plain is only about 7 km long, and on an average 1 km in width. A sharp steep ridge which thrusts out from the cliffs above to only a couple of hundred metres from the coast, divides the plain into two parts. The northern part, which is the smaller one, has a strong stream of beautiful clear water which comes out at the foot of the cliff, and this fact, besides the presence of fairly good landing places for boats, makes this the natural place for a settlement.

On the south side of the island are two similar plains, but smaller, known to the islanders by the names Stony Beach and Seal Bay.

Fig. 3. Tristan da Cunha.

Here, too, are good landing places for boats, but drinking water is not so good and not so easily obtained as in the northern part of the north-western plain. Part of the Stony Beach plain is occupied by Stony Hill, a rugged mass of loosely packed lava blocks with little or no vegetation.

Small grassy slopes are found also at Anchorstock on the extreme west, and at Sandy Point on the extreme east of the island. At Anchorstock, although three big gulches lead down to it from The Peak, fresh water is only to be found in wet weather.

The ground in the plains consists of a layer of mould which, on an average, is quite deep, in some places at least 5—10 m. It is a fine black mould which is very well arable, though it is mixed with sand and loose stones. At Stony Beach some of this fine mould has been covered by black sand which the winds have carried up from the beach below. On The Base the ground is formed by fine humus, supporting a dense vegetation, especially in the more sheltered places, in the bottom of the deep gulches and inside the small craters. On the steeper slopes against The Peak, however, the ground is barely composed of loose cinders that will slip under one's foot for every step, making the ascent to The Peak very tiresome, like walking on an immense heap of coke.

According to the situation of the islands, the climate is temperate and markedly maritime, with a constant humid atmosphere, heavy rainfall, and wind. The average temperature is quite agreeable, keeping, in the lower plains, about 18° C in the summer, and in the winter seldom

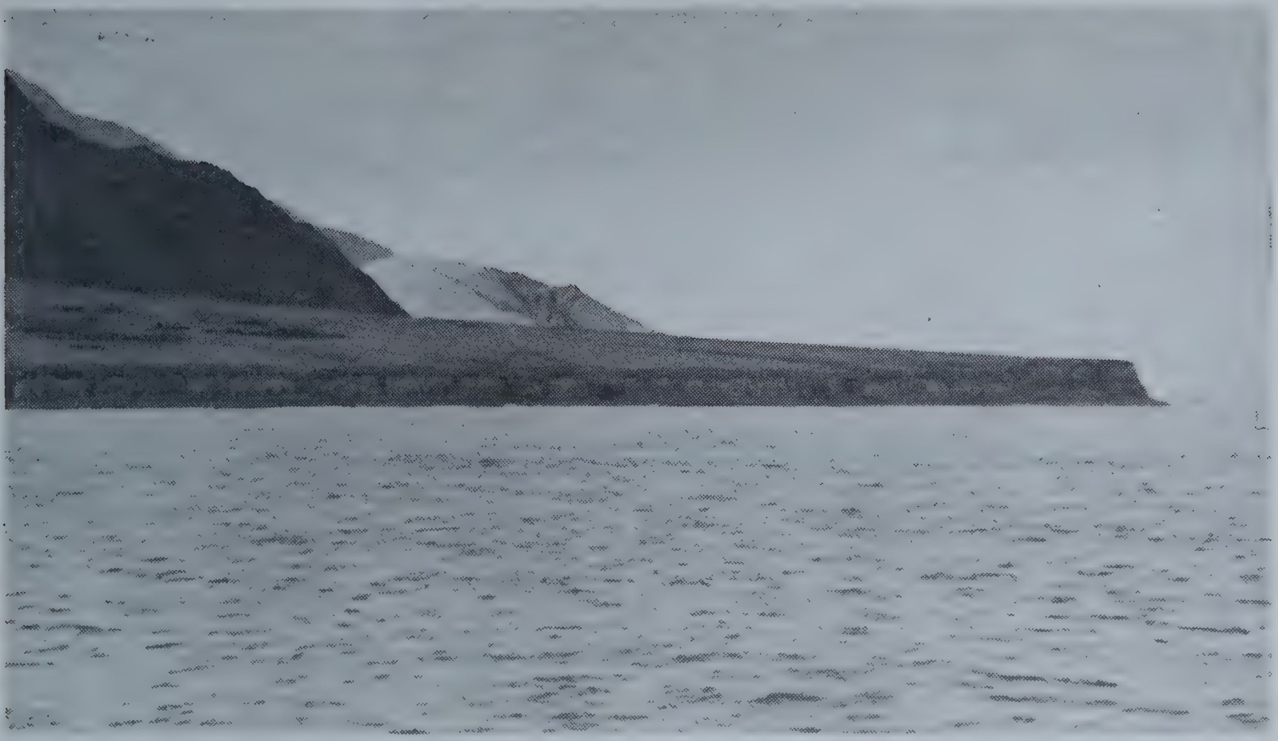


Fig. 4. The settlement plateans as seen from the NE.

or never falling below the freezing point. In the mountain, of course, it is much colder, and The Peak is regularly covered with snow in winter, sometimes right down to the edge of The Base. But in summer it all melts away. Snow very seldom falls in the lower plains, and it never remains on the ground for more than a day or so. Hailstorms, however, occur, especially in the winter and in the early spring, causing much damage to houses, cattle, and crops.

From a meteorological point of view it is quite obvious that an island like Tristan should have much rain. All winds bring damp atmosphere from the ocean, which turning against the more than 2000 m high cone of Tristan, is forced to rise considerably and is cooled, the resulting condensation giving fog and mist in the mountain, very often half-way down the cliffs on the coast, and rain in the lower plains on the weather side of the island, while on the lee side, especially with light winds, the weather may be clear. Owing to this fact The Peak is nearly always covered by a dense cloud of mist which, like a roof, stretches out from the land — a very characteristic feature of Tristan as seen from a distance (see fig. 3).

During the time when the Expedition stayed at Tristan, meteorological observations were made, and they were continued by an islander after we had left (see Christophersen and Schou, 1942). These observations showed a total rainfall for 1938 of 1751 mm at the settlement, with the highest monthly total in May (339.5 mm) and the lowest in

January (26.3 mm). And the more irregular observations made on the north-western edge of The Base and on The Peak showed a rainfall of 1½ time as much on The Base as at the settlement, and 3½ times as much on The Peak (Christophersen and Schou, 1942, p. 7). Out of 14 days in December 1937, when observations were made, 10 days had rainfalls; in January 1938 we had 15, and in February 16 days with rain, while out of 19 days in March 13 were rainy. But very seldom we had rain continuously all day, the rain generally falling in squalls or showers. This was in summer, the comparatively "dry" season in Tristan, which is obvious from the fact that we never saw water in the deep gulches that lead down from the mountain. In winter tremendous squalls frequently occur in connection with heavy storms, turning the dry gulches into great torrents. Even from our observations it appeared that the greater part of the rain falls in autumn and winter, "these two seasons showing more than twice the amount falling in spring and summer" (Christophersen and Schou, p. 4 and table 2).

On the whole, the weather in Tristan da Cunha is very variable owing to the changeable character of the winds. The islands are situated in the West Wind Belt, also called the "Variables", and the prevailing winds are accordingly from a westerly direction, varying from NW to SW. The wind very often changes in the course of the day, and seldom stays in the same direction for more than one or two days. In summer comparatively light winds blow, though on land they are generally much stronger than out at sea owing to the fact that they are pressed round the sides of the high cone. A breeze, therefore, easily takes the form of a storm near the land. At sea level the wind always follows the high cliffs along the coast, a fact which the islanders take advantage of when sailing round the island. A "dead lee" is generally found near the land where the two winds meet. In winter and spring, from May to October—November, the islands are frequented by severe gales which generally arise very quickly.

As a matter of course, on these storm-swept islands vegetation is rather tough. It consists largely of phylica bushes, bog ferns, and tussock grass. The phylica (*Phylica arborea*) is an evergreen, stunted tree, strong and firm, with a twisted stem. It is seldom more than 3 or 4 m high above the ground, and on particularly windy places it is actually a creeper. It is the only kind of tree growing on Tristan, and the islanders call it the island tree. They depend entirely on this tree for fire-wood, and for this use it is well suited as it will burn in a green state. Because of its gnarled and twisted character it is not very useful for other purposes. Dense woods of this "island tree" grow on the north-eastern,

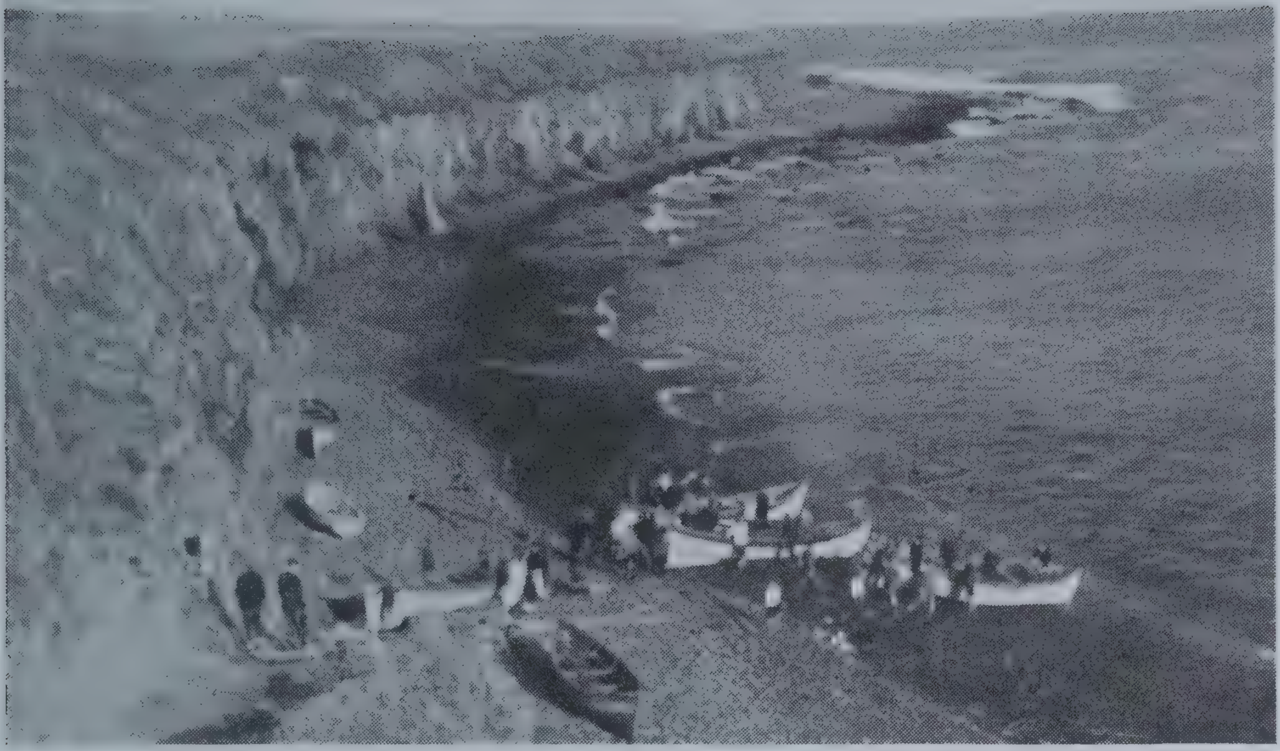


Fig. 5. Little Beach.

eastern, and southern parts of The Base up to a height of about 800—1000 m above sea level. The underwood is chiefly made up of grass and ferns.

Where the wood is discontinued it is followed by a luxuriant growth of tree ferns (*Blechnum palmiforme*) which cover the upper part of The Base. These ferns are two to three feet high, and grow so densely crowded that it is extremely hard to force one's way through them. On the steeper slopes towards The Peak they are replaced by a belt mainly consisting of a kind of sorrel (*Rumex angiocarpus,* by the islanders called "sourgrass") which the islanders occasionally eat, and which would render good pasturages for sheep and goats if ever made use of. On the cinder slopes leading up to The Peak, there is only a scant vegetation of lichens and mosses.

In the older days when the first settlers arrived at Tristan, the low plains, too, were covered with woods and partly with tussock grass (*Spartina arundinacea*), a peculiar kind of grass which usually grows in dense tussocks about 3 m high above the ground. Within memory of old people now living on Tristan, tussock grass was still found at Stony Beach, and the north-western plain, as least, was partly covered with wood. However, the original vegetation was cleared away in order to get pasturages for the cattle. To-day the lower plains are entirely turned into grassy slopes. Only at Stony Beach are scattered woods still to be found in Stonybeach Gulch. Tussock grass is now very scarce on the main island except where is it cultivated for thatching purposes in fenced-in gardens.

The vertebrate land fauna of Tristan da Cunha is largely confined to oceanic birds, which nest in great numbers on the south-eastern part of The Base as well as on the neighbouring islands. The most important of them are the molly (an albatross, *Diomedea chlororhynchus*), the petrel (a storm-bird, *Puffinus gravis*), and the penguin (*Eudyptes crestatus)*. These birds belong to the ocean, and only come in at certain seasons to lay their eggs and feed their young ones.

Mammals are few on Tristan. As to land mammals, there are only three kinds, all of them introduced by man, namely cats, rats, and mice. Cats were introduced by the first settlers and soon turned wild. Once they were quite a nuisance to the settlers, attacking and carrying off their domestic poultry. Now only a few of them live in the mountain, especially in the bush on the south-eastern part of The Base. Rats were introduced some sixty years ago from an American ship which was run ashore on Tristan and abandoned. Once ashore, they increased so rapidly that for some time it was thought necessary for the Tristanites to leave the island because the rats destroyed their crops and ate all their potatoes. This, however, proved to be a slight exaggeration of the real fact. Nevertheless, the rats, of course, do much harm, not so much because of the damage they do in the houses as because they help to destroy the bird life of the island. Both rats and mice are certainly present in abundance, and they swarm all over the island. From near the houses they are partly kept away through constant chasing by domestic dogs and cats.

Fish is present in abundance in the sea round the islands both in summer and winter, and plays a considerable rôle in the economy of the community.

Considerable changes have taken place in the natural conditions of Tristan da Cunha through human influence, and, to understand the background of the Tristan culture, it is necessary to bear in mind that, when the first settlers arrived in the 18th and the first part of the 19th century, this group of islands had quite another aspect than it has to-day. There can be no doubt that man's life in Tristan da Cunha is much harder and more difficult now than it was in former days. And unless we consider some of the most important changes that have taken place, it is hard to understand that human beings settled at all on this isolated spot.

Of course, certain changes that have been purposely impressed on the original environment by man, have in many ways bettered the conditions of the island. Mention has already been made of the extermination of the original vegetation in the lower plains in order to clear the ground for pasturages and cultivation. And we may add: the introduction of different utilitary plants and of domestic animals, cultivation of the ground, the building of roads and shelters. But, however important these changes may be, they are of little significance compared to those more disastrous changes which are not purposely impressed on the environment for cultural ends, but are derived from an intense utilization unto exhaustion of the natural resources by man and his followers rats and mice, and even cats. In fact, in the course of little more than a hundred years, during which time Tristan da Cunha has been inhabited by man, nearly every single species of the original wild life has been markedly reduced in number, or even totally exterminated. And, of course, this destruction has most severely befallen those species of wild life which were of greatest value to man, either directly, as food, or for other economic purposes.

Descriptions of Tristan da Cunha from the beginning of last century agree in praising the abundance of wild life, on land as well as in the sea. In those days the shores of Tristan were frequented by numerous sea elephants (*Macrorhinus leoninus*), and fur seals (*Arctocephalus*), and their regular presence has determined the names of certain places, such as Elephant Bay, Bull Point, and Seal Bay. Jonathan Lambert, an American who lived on Tristan for one or two years and died there in the year 1812, says in a letter to a Captain John Briggs, dated "Great Island, Tristan d'Acunha", 21st Dec. 1811 (Walton, 1818, p. 282—285):

> "— — — Sea-elephants are plenty, and they pup yearly, coming up in the months of August and September for that purpose. — — — This last season I think 1000 pups were brought forth on this island, and as many more on the other two. — — — We have killed about 80 since we landed, and suppose we shall kill about two a-week through the year. We have made about 1000 gallons of oil, — — —."

With regard to the fur seal, it is reported that Captain John Patten of Philadelphia, who with a few men spent 9 months on the island, from August 1790 until April 1791, in that time procured 5600 seal skins. And Lambert, in his letter to Captain Briggs (quoted above), remarks that "perhaps 1000 or 1200 [seal skins] might be taken in 15 or 18 months".

A corresponding richness was found in the fauna of the land. Not only did the molly and the pe-o (*Phoebetria fusca*) nest in abundance in all parts of the island, but even the wandering albatross (*Diomedea exulans)* was then a common bird, and was found nesting all over The Base and on the cinder slopes right up to The Peak. Black eaglets (*Pterodroma macroptera*), too, were plentiful; only 40 years ago, according to information given by an islander (John Glass), thousands of them were killed yearly. In the old days the island name of this bird was mutton-bird, which clearly shows its economic importance. The penguins, too, were more numerous than they are now, and finally mention should be made of the stinker (*Macronectes giganteus*), the large storm-bird which used to nest near Bull Point, between Seal Bay and Stony Beach, and the little Tristan cock (*Porphyriornis nesiotis*), a flightless land bird peculiar to Tristan da Cunha, which was once numerous, but is now entirely extinct.

Besides this vast quantity of birds, the first settlers of Tristan da Cunha found wild goats and pigs there. They were certainly introduced by man, but it has not been ascertained when and how they were brought there. However, goats were found there already in 1790, when Captain Patten arrived with his sealing party, and they seemed to thrive well. According to Earle, an English artist who spent several months on the island in 1824, at that time there were thousands of them in the mountain (1832, p. 328). A few goats and pigs were transferred to Inaccessible Island by William Glass, the founder of the present colony. Now they are extinct in both islands.

With this comparatively rich fauna in view, with the absence of any noxious animal, it is quite natural that a French writer, who visited the island in 1793, could describe Tristan da Cunha as "très-habitable" (Du Petit-Thouars, 1811, p. 18). And yet another fact must be borne in mind: when the first settlers arrived in Tristan the prospects of communication with other parts of the world were much better than they are to-day. The trade routes of the clippers were others than those of the modern steamer, and Tristan da Cunha could very well be described as being situated "in the direct route from Europe and the United States to India, China, and New Holland".[1] Moreover, whales were abundant in the waters near Tristan, making the island a rendezvous of numerous whalers, chiefly American. Though no regular route could be kept up between Tristan and the mainland, on account of the lack of an adequate harbour, this live traffic in the surrounding seas proved to be of great importance to the island.

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[1] Letter from Captain Peter Gordon to Henry Alexander, Esq., dated Table Bay, 27th May 1815 (Theal, 1901/02, vol. X, p. 304 sq.). See also Gane, 1932, p. 118 sq.

2. Remarks on the History.

Discovery and First Settlers.

Tristan da Cunha being situated in the middle of the West Wind Belt, which forms the traffic line for sailing vessels rounding the Cape of Good Hope on their way to India and the Pacific, its discovery was made comparatively early, on one of the first voyages of the Portuguese. The islands were first seen by the famous navigator Tristão da Cunha in the year 1506, and he named the group after himself. It is not ascertained whether he effected a landing on any of the islands, though the presence of goats on the main island may be taken as an indication that he did so, as it was a Portuguese custom to land a pair of goats on desolate islands discovered by them.

A century and a half passed during which time no vessel is reported to have visited Tristan da Cunha. Then, about 1650, a Dutch expedition was sent out in the *Nachtglass* to investigate the islands. The expedition was sent out from the Cape by van Riebeeck, then governor of the Dutch East India Company's station there, and its task was to ascertain whether the islands could be used as a naval base in case of war. The report was unfavourable, and again the islands lay desolate for more than a hundred years, until 1760, when the next visit was made by the British naval officer, Captain Gamaliel Nightingale. His name is attached to one of the smaller islands in the group.

The first who is reported to have landed on these islands is the French captain, d'Etchevery, in *l'Étoile du Matin*. In the year 1778 he anchored off Tristan da Cunha and effected a landing both on Tristan and Nightingale islands. The third island was named Inaccessible Island by him.

From now on there was a more live traffic on Tristan da Cunha. Abundance of fur seals attracted seal catchers to its shores, and in the year 1790 a man named John Patten, captain of the ship *Industry* of Philadelphia, landed with some of his crew to collect seal skins. They remained there until April 1791, being very successful in their sealing business.

From April 1791 the islands seem to have been deserted until the end of the year 1810. Occasional visits, however, were made by different ships. Among those recorded is the visit in the year 1793 by the French botanist Aubert du Petit-Thouars, who went on shore collecting species of plant life.

The scheme of a more permanent colonization of Tristan da Cunha was first formed by an American, Jonathan Lambert, of Salem, Massachusetts. A story runs that he was a fugitive from justice after a stormy career of piracy, though there is no evidence of this. However, he had roamed much on the seas, and on one of his voyages had also touched at Tristan, which obviously pleased him so much that he determined to return and settle there. Consequently, in the year 1810 he sailed out from Rio de Janeiro with two companions in the ship *Baltic* of Boston, Captain Lovel, and arrived at Tristan 27th December. On the 4th of February 1811 he drew up a remarkable document, which was published in a Boston newspaper (reprinted by Walton, 1818, p. 281 sq.), and wherein he constitutes himself the sole proprietor of the islands. It appears from this document that he had the intention to start a permanent colony on Tristan da Cunha for himself and his heirs. He was probably married by the time he went out to Tristan and had left his family in Salem. But it is obvious that his plan was to fetch his family over to Tristan as soon as he had established himself there. The economic basis of the colony was to be the produce of the land and the trading intercourse with passing ships. In other words, Lambert intended to start a trading business with such articles that ships were in need of, in the first place vegetables and fresh meat. For that purpose he took with him from Rio a large number of different plants and different kinds of domestic animals, such as geese, fowls, ducks, and pigs. With his two companions he cleared a piece of ground on the north-western plain, planting potatoes and other kinds of seed which seem to have flourished well.

The names of his two companions were Andrew Millet and Thomas Currie (or Corie). The latter was a native of Livorno, while Millet probably was an American. These two men were obviously engaged by Lambert for certain wages, as labourers in the enterprise.

During the first year the settlers had to endure extreme hardship and privations. They were in want of clothes and provisions, and it appears that Lambert got on unfriendly terms with his companions because he could not pay the wages he had promised to give them. The optimistic scheme of making Tristan da Cunha a "refreshment station" for sailing vessels seemed to fail at the outset. At any rate, this scheme was soon eclipsed by another plan which Lambert put forth in his letter to Captain John Briggs (quoted above).

The new plan was to start a grand-styled oil and seal skin business for the Rio market. In the plans were included the building of a cistern for the oil, and the purchase of a schooner to carry the products to market. From the great numbers of sea elephants and fur seals present on the island Lambert judged that this business would "succeed and become very lucrative". He asked Briggs to be his companion, in the first place to finance the start of the enterprise.

Lambert did not live to realize this plan. It is reported that, on the 17th of May 1812, he took the boat and went out fishing in company with Millet and a sailor named Williams(?) who had shortly before landed from the ship *Queen Charlotte*. They were never heard of again, and they are supposed to have perished at sea.

For a short time after this event Thomas Currie led a sort of Robinson Crusoe existence as the sole and lone inhabitant of Tristan. He was, however, soon joined by two Americans, John Tankard and John Talsen. In this and the following years English whalers just commenced catching sea elephants on the shores of Tristan and the neighbouring islands, and many of them came in to the settlement for provisions. During the Anglo-American war of 1812—1814 Tristan was also used as a base by Yankee privateers and men-of-war preying on East Indiamen, and though the Americans are reported to have constantly robbed the inhabitants by taking away the produce of the island without paying for it, the little colony seemed to get on very well. In 1815 these three men were reported to be in possession of potatoes and other vegetables not only for themselves, but also for the supply of occasional visitors; wheat and oats were grown, and the stock of pigs amounted to a hundred. It was further reported that Thomas Currie (who obviously was the chief person of the party) had acquired about 20 casks of seal oil which he was "desirous of disposing of for necessaries, but found no means of doing so with any of the vessels which had touched there". On the whole Currie "expressed himself contented with his situation in every respect except one, which was the want of a female companion", and caused the captain of a ship which touched at the island to inquire of the Cape Government whether a passage could be granted "any female settler who would be found willing to partake of his fortune".[1]

However, when a British garrison arrived in 1816, only Currie was found there, together with a Spanish boy, Bastiano Poncho (or Ponza) Commilla. Tankard and Talsen had disappeared. Commilla left in another vessel as soon as the troops arrived. Currie died on the island on the 27th September 1817, a few months before the British garrison was finally removed.

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[1] Letter from Captain Peter Gordon to Henry Alexander, Esq. (Theal, 1901/02, vol. X, p. 304 sq.).

Around Thomas Currie's name there rests a sort of mysterious air. Tradition still whispers fearful things about this obscure person and his doings, and what is told of him, gives him a trace of the romantic, though dismal, rumour of the sea-rover. Tristan people still tell tales of his enormous riches of golden coins and other money, silver, pearls, and diamonds which he had hidden somewhere near the houses. He is also told to have informed the British soldiers of his hoard, and that he would some day show the hiding place to that man in the garrison who pleased him most. In consequence, he lived on very good terms with the men, though suspicion arose that he had something to do with the disappearance of Lambert and his two companions Millet and Williams.

However, Currie's secret was never disclosed. Whatever may have been the truth about his hidden treasure and the fate of his comrades, he died a sudden death, and all that was ever found after him was an old kettle with a wooden bottom.

The British Annexation and the Foundation of the Present Colony.

Lambert's independent kingdom was of a short duration. There is a vague report that, shortly after he had published his proclamation, he was visited by the English merchant ship *Charles,* whose captain frightened him so much by talking about the power of the British Empire that he resolved to put himself under British protection, and offered to adopt the British flag (Puaux, 1909, p. 515). But there is no sure evidence that he really did so, though there are signs that the little colony of Currie, Tankard, and Talsen was considered a British colony and a dependency of the Cape.[1]

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[1] In the above cited letter from Captain Peter Gordon to Henry Alexander, Esq., of May, 27th, 1815, it says (the italics are mine): "— — — it is to be feared, therefore, that he [Currie] may be necessitated to leave the island, in which case they may perhaps be settled by the Americans or Portuguese, both of whom have claims (excepting actual possession) *equal to our own;* or even if *reoccupied* by him or others *under the British protection* the difficulties to be encountered would be nearly equal to those attendant on a new settlement. He always expressed himself contented with his situation in every respect except one, which was the want of a female companion, which if removed would I doubt not be the means of establishing a permanent *British Colony* on the Tristan Islands." And the benefits of a support of these settlers are described as "more national than individual". (Theal 1901/02, vol. X, p. 304 sq.) Obviously there was a British claim to Tristan da Cunha *before* the formal annexation in 1816, but it cannot be ascertained what this claim was based on. It should, perhaps, in this connection be remembered that Thomas Currie's father was an Irishman.

However this may be, on the 14th August 1816 the islands of Tristan da Cunha were taken formal possession of in the name of King George III, and on the 28th November the same year a garrison was placed on the main island. This was a precaution to prevent the islands being used as a base of operations for the rescue of Napoleon from St. Helena.[1] The only persons found on the island were, as we have already heard, Thomas Currie and Bastiano Commilla.

The garrison consisted of 3 officers, 3 non-commissioned officers, and 35 men, amongst whom were several Hottentots, under the command of Captain Josias Cloete, of the 21st Regiment of Light Dragoons. They were accompanied by 10 women, wives of the soldiers, and several children, and were well equipped with horses, cattle, sheep, poultry, and pigs, and with various seeds and plants. Captain Cloete had received detailed instructions from Lord Charles Somerset, at that time Governor of Cape Colony, according to which his principal duty was to maintain the occupation of the islands. But he was also directed to cultivate the ground for growing vegetables and grain in order to make his detachment as much as possible economically independent of Cape Colony. Obviously the occupation was meant to be of a permanent character.

In accordance with these instructions, Captain Cloete immediately commenced work, constructing fortifications and clearing ground for a vegetable garden. Ten acres of land were cleared and cultivated. A large piece of ground was already under cultivation by Thomas Currie when the detachment arrived — the reports vary as to its extent between 5 acres and 20 acres — and Theal, dealing with the British occupation of Tristan da Cunha, remarks that his right of proprietorship of his land was fully recognized by the British (Theal, 1908, p. 245). But after his death, of course, his land was incorporated with the other cultivated ground. Even Lambert's old idea of making Tristan da Cunha a provisioning station for vessels passing the islands on their way to the Far East, was adopted by Captain Cloete, and he was full of confidence with regard to the prosperity of the new colony.

The occupation, however, did not last long. In the meantime the benefits of maintaining the garrison on Tristan were discussed in London, and the opinion was expressed that concerning the guard of Napoleon the occupation of Tristan da Cunha was of little or no importance, as the situation of these islands made them useless for the rescue of the Emperor. Consequently, the resolution was made by the British Government to evacuate the island, and in May 1817 Captain Cloete and the best part of his detachment left the island. Only a few artillerymen were left behind under the command of Lieutenant Aitchison, because they could not be accommodated on board. But on the 19th November the same year the British garrison was finally removed.

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[1] The documents concerning the British annexation of Tristan da Cunha are published by Theal (1901/02, vol. X, XI), and discussed by Dehérain (1912).

Before Lieutenant Aitchison and his party left Tristan, three of his men asked his permission to remain. One of these was William Glass, a native of Kelso in Roxburgh, Scotland, who is commonly recognized as the founder of the present settlement in Tristan da Cunha. According to Earle, to whom he related his story, in his young days he had been a gentleman's servant in his native town, but having, while still quite a youth, been crossed in love, he enlisted as an artillery driver. Eventually he was transferred to the Cape Colony, where he was generally employed by an officer as his servant, accompanying him on several hunting expeditions. He soon advanced to the rank of corporal, and, in 1816, was chosen to be a member of the British garrison in Tristan da Cunha, as principal non-commissioned officer for a party of Hottentots (Earle, 1832, p. 304 sq.).

William Glass was, by common judgment of those who met him, a man of good intelligence and of an outstanding moral character, with a strong sense of right and wrong. He was also a devoted member of the English Church and deeply religious, and in this and other respects his influence upon the spiritual structure of the community has been strong and enduring.

While stationed at Cape Colony, Glass married a young girl, Maria Magdalena Leenders. She seems to have been a coloured woman, presumably of half Dutch origin, but born at the Cape. She was only thirteen years old when she married William Glass, and when fifteen years old she accompanied her husband to Tristan da Cunha together with a son, little more than one year old. Before the garrison left she had also a daughter.

The other two men who asked permission to stay on Tristan, were two masons employed in the fortification works, John Nankivel and Samuel Burnell, both Englishmen and natives of Plymouth.

The petition of the three men was granted by Lieutenant Aitchison, subject to the approval of Lord Somerset. By Lieutenant Aitchison's order the new settlers were also allowed to take over the cattle, sheep, poultry, stores, etc., left by the garrison.

On the same day the following agreement was drawn up and signed by the three male settlers in the presence of Lieutenant Aitchison, and one other man before the garrison left the island:[1]

"We, the Undersigned, having entered into Co-Partnership on the Island of Tristan da Cunha, have voluntarily entered into the following agreement — Viz —

1st That the stock and stores of every description in possession of the Firm shall be considered as belonging equally to each —
2nd That whatever profit may arise from the concern shall be equally divided —
3rd All Purchases to be paid for equally by each —
4th That in order to ensure the harmony of the Firm, No member shall assume any superiority whatever, but all to be considered as equal in every respect, each performing his proportion of labour, if not prevented by sickness —
5th In case any of the members wish to leave the Island, a valuation of the property to be made by persons fixed upon, whose valuation is to be considered as final —
6th William Glass is not to incur any additional expence (sic) on account of his wife and children.

(Signed) Samuel Burnell
Wm. Glass
John his × mark Nankivel

Witnesses
R. S. Aitchison
Lt. R. Ri. Ay. Commdt.
Charles Mason
Royal Navy.

Somerset Camp,
Tristan da Cunha
7th November 1817."

As will be seen from this document, the intention of the three men was to establish a firm, the nature of which should be that of a co-partnership wherein profit, expenses, and labour were equally divided between the members. It does not appear from the agreement what object the firm was meant to have. But from other documents in the collection discovered in New London it is seen that trade was carried on with sea elephant oil and seal skins for the Cape market. Even a schooner was bought to carry the products to market. We recognize Lambert's grand-styled plan of an oil and seal skin business on Tristan, and possibly Thomas Currie has told the new settlers of this plan, though the abundance of sea elephants and seals on the islands sufficiently explains the rise of such a scheme for a second time.

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[1] After the original document, now in the British Museum. This document was, together with several other island records, recently discovered in New London, Connecticut. The very interesting collection, the greater part of which is now in the British Museum, has been published by Gane (1933).

But, though the concern was constantly spoken of as a "firm", yet it is obvious that the agreement at the same time constitutes an independent community in Tristan da Cunha, regulating not only the economic, but also the social relationship of its members. No doubt Gates is right when, in a letter to Gane concerning the matter, he characterizes this agreement as the first constitution of the island (Gane, 1933, p. 594). And as such it is of particular interest: The little community thus established, consisting as it did of only six persons, three men, one woman, and two children, was from the outset characterized as an absolute co-operation of individuals, based on the principle of equality — not only in things directly concerned with the business, but also in the administration of the community as such. In this respect especially the fourth article of the agreement is significant, as it is obviously meant to prevent any of the members from trying to exercise any governmental control over the others, presuming that everybody does his portion of labour for the common good without any such control.

Such were the beginnings of this community, and though considerable changes took place as the number of its members increased, the spirit present in this first agreement has been active ever since.

Trading Aspects.

Shipwrecks and New Settlers.

When carrying on a trade on Tristan da Cunha, a difficult question that had to be raised and solved was that of a communication with the mainland. Thomas Currie had seriously felt the want of an adequate harbour and the uncertainty in depending on passing vessels to carry the produce of the island to market. And probably Glass and his companions had experienced the same difficulties, for in 1820 Samuel Burnell was entrusted by his two companions to go to the Cape to act as an agent for the firm. In June of the same year he appears to have sold 119 seal skins and 2 tons and 80 gallons oil to a certain William Hollett in Cape Town. But the money never reached Tristan. According to Taylor, Burnell "met with bad companions, spent all the money he got in drink, and then, being ashamed to return to the island, made his way back to England, and they saw no more of him". And Taylor continues:

"This was but the first of a series of dishonest actions by which these poor men have been from time to time robbed of their hard earnings (1856, p. 15).

A new attempt to solve the problem of communication was made in 1822 by the purchase of the schooner *Jane*. But before that time there were great changes in the structure and organization of our little community.

During the first ten or twenty years after its constitution, there were considerable fluctuations in the composition of the population, people going to and fro, settling for a while, and leaving. We have just read that Samuel Burnell left Tristan as the island's agent at the Cape, and never returned. But ha was shortly after replaced by three new settlers. Together with two other men they had been sealing in a small sloop, the *Sarah*, but as the voyage was a most unsuccessful one, they ended it by letting the ship go ashore at Tristan, saving themselves in a boat, but nothing else, except their clothing and a little food (Taylor, 1856, p. 14 sq.). Three of the men resolved to stay and to settle down on the island, while the captain and the mate went away in a ship that touched there. The three men were Richard Riley (a Deptford fisherman), Thomas Fotheringham, and John Turnbull. They arrived at Tristan in December 1820. They were also joined by two sailors from the ship that took away the captain and the mate.

Six months later, the number of inhabitants was again increased by three. Two of them, Alexander Cotton (commonly called by his *nom de guerre:* John Taylor), and John Mooney, had visited the island a couple of times while the British garrison was still there, and once after the garrison had left. And so delighted were they with this little independent community that they resolved to join it and to settle down on Tristan. They went home to England, were paid off, and, after having spent all their money, asked the Admiralty to let them have a free passage out to the island, offering to give up all claim to a pension in return. Their humble request was granted, and on the 21st June 1821 they were landed on Tristan from the brig-of-war *Satellite,* bound to India. They were also joined by a sailor Kenith McIntosh, who ran away from the ship.

The wreck of the *Sarah,* which brought Riley, Fotheringham, and Turnbull to the island, was only the first in a series of similar accidents which should from time to time increase the number of settlers on Tristan. The most famous of them all is the wreck of the East-Indiaman *Blenden Hall* on Inaccessible Island, on the 23rd July 1821, with 84 persons on board. The direct cause of the wreck was fog. Two of the crew were killed when the ship struck, but the rest contrived to get on shore, though little or no food was saved. During the three or four months that they spent on this desolate island they lived on sea-birds and their eggs. They could see Tristan in the distance and knew that a little colony of Englishmen was living there. But they had no means of getting there, the ship's boats having been lost when the ship struck. At last a frail craft was made out of the wreck, and six men put off in it to try to reach the other island. They were never heard of again. But soon another and more successful attempt was made, and on the 8th November nine of the crew arrived at Tristan, where they were received with great hospitality by Glass and his companions. Two boats were immediately sent to Inaccessible with food and refreshments, and after a couple of crossings all the shipwrecked were transferred to Tristan. Here they remained until they were taken off in turn by two passing ships, in January 1822, not without leaving a more permanent increase in the number of settlers: A young sailor on board the *Blenden Hall,* Stephen White, had fallen in love with a servant maid who was also on board, and on Tristan these two resolved to marry and to join the party of settlers, thus forming the second married couple on the island.

While the shipwrecked people were there, they apparently caused much trouble to the settlers and disturbances in the harmony of the little community. It is reported that there were furious and constant quarrels between two ladies who were among the passengers of the ship, and also between the passengers and the crew there was constant strife. Some of the sailors, too, grew discontented over the food they got, and refused to do the work they were set to (Lockhart, 1933, especially p. 156—167).

These not very comfortable circumstances form the immediate background of the setting up of a new and revised agreement between the settlers, which was to replace the first agreement of 1817. The new document, which was set up while the people from the *Blenden Hall* were still there, and signed by the settlers in the presence of one of the passengers, expresses, in a way, a consolidation of the community against the involuntary invaders who did not agree with the approved social order, since membership of the group is thus conditioned by the signing of a paper. The document has the following wording: [1]

"We the undermention'd having enter'd into Co-partnership on the Island of Tristan de Acunha, have voluntarily made the following agreement. (Viz)

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[1] After a copy in possession of the British Museum. This copy was also among the documents discovered in New London.

1st That whatever profit may arise from the sale of Oil, Skins, &c shall be equally divided between all Hands.

2nd Every thing that arises from the produce of the Land, shall be equally divided in the like manner, as long as the People continue to Work at the same; it is at the same time to be understood that the whole of the Land, Stock, &c &c is the sole and joint property of Wm. Glass and John Nankevile.

3rd No Person subscribing to this agreement, is to be exempt from Labour for the general good of the Firm, (except) in Cases of actual sickness or other unavoidable reasons.

4th The Members of the firm not Concerned in the purchase of the following Articles are to make an allowance, (which will be duly settled and agreid upon by all hands hereafter) for the use wear and tear (viz) The Farm utensils, Boats, Oil Casks, &c &c.

5th All purchases for the general good of the firm, to be paid for equally by each.

6th In case any of the members wish to leave the Island, a valuation of the property in which he may be concerned, will be made by the whole, which valuation is to be consider'd as final.

7th No person subscribing to these articles are to cont. . . . .[1] particular p(erson?)[1] of their Duty in point of Work, or otherwise, as in such Case nothing but *disunion* will be the consequence; Wm. Glass being at the head of the firm, will allot to each individual every evening, his work for the following Day, not by way of task but merely for the purpose of causing all to do their best for the general good, which will be the means of insureing peace, and good will among the people, as well as benefitting the Establisment, in which all are concerned.

8th The whole charge of and management of the Boats at present in possession or that may be Built or purchased hereafter for the good of the firm is to be left to Thos. Fotheringham, so long as he wish's to remain a partner in the aforesaid firm, and during his absence with any part of the Craft in Trading &c for it, The remaining Boat or Boats, are to be in the Charge of John Turnbull, between whom and Thos. Fotheringham, the arrangements of the Crews also for the different Boats, will be made, from the duty of which John Nankevel is totaly exempt in consequence of disability, as well as his presence being at all times required in the more immediate concerns of the Firm.

Given under our Hands and Marks at the Island of Tristan de Acunha this 10th Day of December in the Year of our Lord 1821 and the first of our present King George the Fourth.

(Signed) Jno. Tayler $\underset{\text{mark}}{\overset{\text{his}}{\times}}$

Wm. Smyth — $\underset{\text{mark}}{\overset{\text{his}}{\times}}$

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[1] Indecipherable.

Jno. Mooney
Kenith McIntosh
Step. White
Thos. Fotheringham
Jno. Turnbull
Jno. Nankevil
Barnabas Wood
Wm. Glass
Thos. Dagger

Tristan de Acunha
10th Decr. 1821.
Witness
B. Gormby 2n B 67 Regt."

In this agreement there are considerable changes from the first one, and even this fact suggests that everything was not going on to everybody's satisfaction according to the rules agreed upon when the settlement was founded.

First of all, the principle of equality which formed the main pillar of the first agreement, has been given up in essential points. A predominant position, economic as well as social, has been given to the original settlers. Not only are they declared sole proprietors of the whole of the land, stock, etc., etc., but, through the disposition of the 4th article, they are entitled to receive from the others a certain rent for the use wear and tear of utensils, boats, oil casks, etc. in their possession. This may be said to be a fair arrangement, but it entails a fundamental change in the social structure of the community, endowing the original settlers with the position of a kind of *élite*.

But still more important is the introduction, in the articles 7 and 8, of an institutional leadership on Tristan. In the first agreement great stress was laid on the principle of equality also in this respect: No member was to exercise any governmental control over the others. Here William Glass is declared to be "at the head of the firm", meaning that he is to be the chief of the community, with the right to supervise that everybody does his duty for the common good, especially in point of work. From that day he is commonly entitled Governor. In like manner Fotheringham is appointed chief of the boats and the boats' crews, with Turnbull as his assistant and substitute during absence.

On the other hand this new agreement lays particular stress on the solidarity of the members of the firm. The firm as such is still a co-partnership, with equal distribution of all profit arising from the agency of the firm, and of expenses "for the general good of the firm". All work is still to be performed in common. Especially the original settlers' monopoly of ownership of land etc. has been weakened in its effects by the appointed equal distribution of the produce of the land. The community is still to be a working whole and an economic unity in every respect.

Through these rules the Tristan community received a definite organization which, of course, involved considerable restrictions in the members' personal liberty. Whether the rules were ever effected in their full strictness is another question. It is an interesting fact, however, that Glass after his death had only one successor who was only half-way recognized as a governor, and to-day the principle of social equality has, in this respect, been fully restored, the only form of leadership known and recognized among the islanders being the personal leadership.

But to return to the history of our little community now numbering 18.[1] The next event was the purchase of the schooner *Jane* already referred to. Reports given at the Cape by people from the *Blenden Hall* of the large quantities of sea elephant oil in possession of the settlers on Tristan da Cunha had moved the captain of the *Jane* to go there and try to procure a cargo. Not only did he get a good cargo of oil and seal skins, but, the islanders being desirous of having a small vessel for their own use, William Glass went in her to the Cape to try to make a bargain for her with the owners, Henry Nourse & Co. in Cape Town. He was successful in his mission, and, on the 26th May 1822, the purchase account and other necessary instruments of transfer were signed. The vessel, which was a 50 ft. schooner, of 71 4/49 tons, was sold to Glass at the price of £ 700, payable with interest in twelve months from the date of sale, and the first cargo, consisting of 2205 gallons of oil and 150 seal skins to the value of $ 233.75, or about £ 60, was taken as the first payment on account of the transaction.

When Glass returned to Tristan in the *Jane*, he brought with him at least two new settlers, a man named John Murray and his wife. Mrs. Murray was the third woman to settle on the island. They did not stay long. In the meantime many of the male settlers had left and gone on board the *King George* which was sealing on the shores of Tristan and the neighbouring islands, induced to do so by the high wages offered.

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[1] Viz. 11 men (the subscribers of the second agreement), 2 women, and 5 children, all of them children of William and Maria (Mary) Glass. It is striking that Riley, though he arrived in December 1820 and, according to Taylor, "remained here ever since", is not among the subscribers in the second agreement, unless he may be identical with either William Smyth, or Barnabas Wood, or Thomas Dagger. He is mentioned under the name of Richard Riley in the documents concerning the purchase of the *Jane* the following year.

As soon as the schooner reached Tristan, the islanders took her over, put some of their own hands on board as crew, with Fotheringham as captain, and started loading her with another cargo of oil for her late owners. But great difficulties arose, and now the islanders were to feel severely the want of a harbour on Tristan. No doubt on account of exposure to heavy swell while at anchor off Tristan the vessel fell out of repair,[1] and, after only two voyages under island ownership, was lost in Table Bay. All the men on board were saved, but none ever returned to Tristan. This was in 1823, just a year after the purchase of the schooner. She was never replaced.

The number of settlers was now much reduced. Nankivel had left already the year before the loss of the *Jane*. When, soon after, Murray and a few others went away, there were only 6 adult settlers left on the island, viz. 4 men and 2 women. The four men were Glass, Riley, Cotton, and White. But within a few years their number was again increased. In 1825 another very dramatic shipwreck, that of the English brig *Nassau*, which apparently occurred on the south side of Tristan, brought one new settler, Peter Petersen, a Dane, who remained on the island until his death in 1833. Soon after there arrived George Pert (or Peart) who made his escape from an emigrant ship bound to New Zealand, to save himself, it is reported, from being put on trial at the end of the voyage for an offence committed on board. He remained until 1836.

After the loss of the *Jane* the greater part of the communication with the mainland seems to have been, for some years, effected by a certain Captain Amm, master of the small sloop *Duke of Gloucester*. He visited the island several times, trading with the settlers and taking their produce of oil, potatoes, etc. to the Cape and to St. Helena, bringing back other necessary and useful articles in return. He kept up this trade only for a few years, but the alliance he thus formed between Tristan and St. Helena was to be of long duration. A trading intercourse was kept up between the two islands, though very irregularly, at least until the eighties, effected by American whalers cruising between the islands.

At the request of Glass, on one of his first voyages on account of the Tristan settlers, Captain Amm brought two new settlers from the Cape. The two men were Thomas Swain, a native of Hastings, England, and a man named Taylor. The latter did not stay long, but Swain remained on the island ever since, until his death in 1862, and has now a large flock of descendants there. Swain had served in the *Theseus* under Nelson during the war with France, but ran away after having been 18 years in the British service. He was taken prisoner by the French, and, "to this sad disgrace as a Biritish sailor", was induced by threats and promises to serve with them against his native country. He continued three years in the French service, and then, "by a righteous retribution", was retaken by the English and remained nine years a French prisoner in his native country, "not daring for his life to own the truth". Being set at liberty on the conclusion of the war, he went in a merchant-ship to the Cape, where he was found by Captain Amm, and induced by him to join the little colony on Tristan da Cunha (Taylor, 1856, p. 35 sq.).[1]

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[1] Cp. letter from William Glass to Henry Nourse, an undated draught of which was found in New London and is published by Gane (1933, p. 598).

Swain arrived at Tristan in 1826. A short time after his arrival Stephen White left with his wife and children.

There were now 14 people on the island, six men and one woman, besides Glass' children, at this time numbering seven. And now the five bachelors on the island, Riley, Cotton, Petersen, Pert, and Swain, made a somewhat curious bargain with Captain Amm: He was to procure five marriageable women who were found willing to return with him to Tristan in search of husbands. Captain Amm set sail for St. Helena, and, on the 12th of April 1827, returned with five women, a single man named John Isaacs, and some children which two of the women brought with them. Each one of the women was chosen by one of the single men, with whom she joined in a lasting alliance, and from now on there is a more rapid increase in the population of Tristan da Cunha.[2]

These five women are reported to have been of a mixed European and "coloured" origin, and, from the anthropological types represented in Tristan to-day, it is obvious that, through these women, quite a large percentage of "coloured" blood was introduced (see below).

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[1] Swain's service under Nelson has obviously impressed his companions on Tristan, for, in the course of time, island tradition has identified him with that very sailor who caught Nelson in his arms as the Admiral fell mortally wounded on board the *Victory*.

[2] According to an island tradition Captain Amm's reward for the transaction was 20 bushels of potatoes per head of the women.

A New Trade.

American Whaling off Tristan.

A new era in the history of our little commuity was marked when Americans from New Bedford, Massachusetts, started their grand-styled whale fisheries in the South Atlantic, attracted by the vast quantity of whales then to be found there. These fisheries were carried on with comparatively small sailing ships attended by open whale boats, the handling of which required a comparatively large crew on board; and as they had to stay away from home for several months at a time, they were largely dependent on Tristan da Cunha and St. Helena for the supply of water and other provisions.

This whaling traffic commenced in 1828 and increased rapidly during the first ten or twelve years. According to Taylor (1856, p. 39), during this period sometimes as many as sixty or seventy ships were to be seen at one time whaling off the island. The traffic was at its height about 1840 and then, very slowly, died off, the last American whaler touching at Tristan as late as 1913.

For Tristan this new traffic had, first of all, an economic aspect. As already mentioned, the whalers were largely dependent on Tristan (and St. Helena) for the supply of water and other provisions that the island could procure, such as potatoes and other vegetables, fresh meat, and fish. On the other hand, the islanders have always been dependent on supplies from outside of such articles as flour, sugar, coffee, tea, clothes, tobacco, etc., that the islanders could not, or would not, produce themselves. Consequently, a very brisk barter could be carried on with the whalers for the benefit of both parts. Moreover, the whalers were of great service to Tristan in effecting a not inconsiderable trading intercourse between this island and St. Helena. Probably considerable quantities of oil, potatoes, and, in later years, cattle and sheep, were during this period taken over from the islanders by the whalers and sold on their behalf at St. Helena, thus making Tristan da Cunha a prosperous little community for a short time. In those days flour, sugar, tobacco, and even spirits, were present in rich quantities on the island, and the islanders had no difficulties whatever in getting what tools and materials they needed for cultivating the ground or building their houses.

A very conspicuous consequence of this traffic was a continuous fluctuation in the population of Tristan da Cunha, with a lively migration to and fro. Most of the young men of the second generation were employed in the whaling industry for a shorter or longer period, and many of them never returned to Tristan, but settled down in the American whaling centre New Bedford. Some of the young girls, too, were married to American whalers and left the island. At least twelve of William Glass' sixteen children left Tristan in that way.

On the other hand, a few American whalers settled down on Tristan. The first to do so was a man named Samuel Johnson. He arrived in 1833, married Glass' eldest daughter, but in 1847 returned to America, taking his family with him.

In 1836 a second daughter of William Glass was married to another American whaler, Rogers, who settled down on the island. But a few months before his arrival a shipwreck had again caused an increase in the number of settlers. This was the wreck of the schooner *Emily,* of Stonington, on the 5th October 1836. This time again, no less than three of the crew resolved to remain as settlers: William Mills Daley, an American, Pieter Willem Groen, a Dutchman, and Peter Christian Miller (Møller?), a Dane. They all married Tristan girls, Daley a daughter of Glass, the others two of the St. Helena girls whom their mothers brought with them in 1827. Groen remained on Tristan until his death in 1902 and became an outstanding person in the little community. After his arrival he gave his name an English form, calling himself henceforth Peter William Green.

Rogers, the American whaler who arrived soon after the wreck of the *Emily,* remained only for a short time. After a year or two he went away in a ship that touched at the island to bring a sick man on shore, Rogers taking the sick man's place, leaving his wife and his little son behind. He never returned. The sick man, however, whose name was Charles Taylor, settled down in his place and married one of Glass' daughters.

When Samuel Johnson went away in 1847 with all his family, he was soon after replaced by another American whaler, the captain of a whaleship, Andrew Hagan. He settled in 1849 and married a fifth daughter of William Glass. He remained until his death in 1898.

The last American whaler to settle down on Tristan was Joseph Beetham, who arrived about 1866 and married one of Cotton's daughters.

Although the economic and social status of the newcomers in relation to the signed agreement of 1821 is not quite clear, there is no evidence to prove that they were not fully recognized as members of the community on equal terms with the others, only Glass, the only one remaining of the original settlers, being still recognized as the leader. However, there was not a free invasion of new settlers. It should be remembered that the settlement in Tristan da Cunha was not formed for economic purposes alone, or as a mere association of adventituous individual settlers, but, from its very beginning, had a definite social aim, viz. to form a community based on the principles of equality and solidarity in every respect, economic as well as social, and that this aim was expressly made the chief point in a special agreement between the settlers. From this point of view the settlement of Tristan da Cunha may be regarded almost as a political sect, a kind of Utopia, with a solidity comparable to that of a religious denomination. It is quite natural, therefore, that the Tristan community had to guard its ideological unity through certain restrictions in the adoption of new settlers, and this is obviously the motive underlying the decision not to allow any runaway to settle down on the island as a member of the community. This decision had also, of course, a more immediate background in unfortunate experiences concerning this particular class of people. There were not few of them in the early days; it frequently happened that sailors made their escape from their ships while touching at Tristan, hiding themselves in the bush until the ship had left. In the middle of the twenties there was quite a gang of runaways on the island, and they always seem to have caused trouble of some kind or other. Moreover, when the American whalers began to frequent the island, these undersirable elements occurred in such numbers that it was deemed advisable to keep them away.

This rule was very rigidly observed, as is shown by the following story told by Taylor (1856, p. 47):

It must have been about the year 1839 that a sailor made his escape from a whale-ship and, in spite of the decision made by the islanders, was induced by one of the men to remain. He also married one of the St. Helena girls, and had several children. But though he settled down and remained for eleven years, he was never received as a member of the community. He was probably allowed to cultivate a piece of ground where he could grow a few potatoes and vegetables, and on the whole he was left in peace. But they refused him any form of fellow-ship, and he was not allowed to trade with passing ships along with the others, neither had he any opportunity to do so because he was not allowed in their boats, and he could not go alone because it is impossible for one man to handle a boat through the surf. Also in consequence he had to do all his fishing from the rocks on the beach. In some way or other he made a living, but at last he succumbed to the psychical effect of his social isolation and took his own life. His wife and children soon after left in a whale-ship.[1]

In 1851 the community of Tristan da Cunha was given its first appointed clergyman, sent out by the Society for the Propagation of the Gospel, William F. Taylor. Two missionaries had previously visited the island: in 1835 Thomas Hill Applegate, and in 1848 John Wise, both touching at the island on their way to India and Ceylon. But none had ever been resident on Tristan for any considerable period. Taylor remained six years on the island, 1851—1857.

Taylor took a very pessimistic view of the future prospects of the community. Over-population was by him already deemed its main problem. In his day the population of the island numbered 95 persons, and he considered that this number denoted a maximum of what could "well find support in the present state of things" (Taylor, 1856, p. 89). Moreover he forecasted the cessation of the whaling traffic which, at that time, had already passed its climax, and pointed out the increasing difficulties which would then arise in finding a profitable market for what little surplus produce the island could raise. In consequence of this view Taylor voiced for the first time a question which has since been discussed again and again: the question of a total evacuation of the island.

No doubt Taylor's view greatly influenced the attitude of the islanders, especially of the younger generation who had not voluntarily settled on the island, and whose natural desire to wander had already been aroused by the closer contact with the outer world caused by the whaling traffic. Some had already left the island before Taylor arrived, but after his arrival there was a considerable increase in the numbers of emigrants, and when the bishop of Cape Town visited the island in February 1856, he found that the people were "almost unanimous in desiring to quit the island". At the cessation of Taylor's mission in 1857 no less than 50 persons, more than half the population at that time, left the island almost simultaneously. Some of them went to the United States of America, while others went with Taylor to South Africa and settled in Riversdale and Mossel Bay, where Taylor continued several years as their minister.

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[1] This person is probably identical with a certain Jack who, according to an island tradition, was not allowed to trade with passing ships, and of whose wretched life and sad end fearful tales are told. According to a notice by Taylor (p. 83), his surname seems to have been Anderson. His wife may be identical with a certain Jenny, a widow who lived by herself in a hut some distance from the settlement, and who used to fish from a rock on the beach which is still known as Jenny's Rock. Her name is also attached to a small stream, Jenny's Watrin', where she used to fetch water.

But previous to this an event occurred which may also have been instrumental in intensifying the wish of the younger generation to leave the island and abandon the settlement forthwith. This was the death of the governor William Glass. He died on the 24th of November 1853.

It it not known whether Glass had any plans for the future administration and organization of the community he had founded. Two different wills from his hand have been preserved (though none of them bears his signature), but they contain no dispositions with regard to the government of the community. The first will, which is now in the possession of Bob Glass, a grandson of the founder, now residing in Tristan da Cunha, is dated 1824. It has the following wording:

THE LAST WILL AND TESTAMENT OF WILLIAM GLASS

To all whom it may concern, these are to certify that I William Glass, now residing on the Island of Tristan de Acunha, in perfect health and sound mind, but not knowing at what moment it may please God to call me, do, in the case of my Death, Will, and Bequeath, the whole of my Property, of every description to my wife MARY GLASS AND CHILDREN, now residing with me on the above mentioned Island of Tristan de Acunha. This my first, and only true Will and Testament, is to express my wishes, that no other Person may claim any property which I may die possessed of to the injury of the aforsaid Mary Glass and Children; and that at my Death, the aforsaid Mary Glass and Children do take possession of the whole of my Property; to the exclusion of all other Claimants. And that this is my wish and intention, I now draw up this Will and Testament, so help me God.

Done on the Island of Tristan de Acunha the 30 day of August 1824.

Witness. Augustus Earle.

The second will, a copy of which was among the documents discovered in New London, is more fully expressed and contains an aditional provision about the interrelation of the children which, perhaps, has a wider prospect:

August 31st 1832.

I, William Glass, now while possessing the enjoyment of perfect mental and bodily health, do hereby bequeath to my wife, Mary Glass, the whole of my property. In the event of the death of the said Mary Glass, or of her taking an other husband, it is hereby my will that the whole of that property be put in possession of my children; one third of which is then to be placed at the disposal of my eldest boy, William Glass, and the remainder is to be equally distributed among my other children. It is also my will, that my Son, William Glass, in the event of his Mother's marriage, or death, shou'd upon being put in possession of that which I have above assigned him, take the care and guidance of his younger brothers and sisters under his immediate control; acting by them as a brother ought to act, and being to them both brother and father.

Signed by me this thirty first day of August, A. D. MDCCCXXXII.

Witness hereto

Moses Samson
Benjamin James Scott Parkhurst.

According to the agreement between the settlers of 1821 Glass and Nankivel were sole and joint proprietors of all land, stock etc. Nankivel, as mentioned, left in 1822. But it is not known whether Glass, at the time when this will was drawn up, was still recognized as holding a monopoly of ownership on the island. If so, it is quite possible that the main intention of his setting up a will was to maintain this monopoly for his children. And on this background the will of 1832 seems to suggest that it was his — conscious or unconscious — intention then by giving his eldest son a leading position among his other children to put him *de facto* at the head of the community.

However that may be, the effect of the will to this end was weakened to a considerable degree by the dissolution of the originally true socialistic community into a group of economically self-dependent families. This process had started already before the death of the governor. In Taylor's day there was private ownership in sheep, and probably in cattle, although Glass still had the most, "none of the others having a large flock as yet" (Taylor, 1856, p. 86). Even with regard to the land a kind of private ownership seems to have developed. With the advent of new settlers it must very soon have become a custom that each one cleared his own share for pasturages and cultivation, and there are things that indicate that each clearer retained a private right of usage, at least, to the piece of land he had cleared, with a resulting dissolution of the community as a working whole. In other words, the original settlers' monopoly of ownership of land and stock was not maintained.

Moreover, it is not very likely that the will was ever effected in its full sense. For after the death of William Glass nearly all that part of his family who had not left before went away. More than half the persons who left the island in 1857 were his sons and daughters with their spouses and children. His wife was also among them. Of his numerous family of 16 children there was now probably only one daughter left on the island, namely Selina, who was married to Andrew Hagan, the American whaling captain who settled in 1849.[1] She probably took over all her father's property, leaving it at her death (probably about 1870) to her husband, for in 1884 we meet Hagan as a sort of "cattle king" and the owner of "nearly half the cattle on the island, (and) likewise the pasture".[2]

At any rate no governor was appointed after the death of William Glass. Alexander Cotton seems to have had a leading position for some time,[3] but after his death (about 1865?) there was no appointed headman on the island. It is a common conception that Peter Green succeeded William Glass as the governor of Tristan da Cunha.[4] It should, however, be observed that he was never appointed chief, and had no office whatever from the inhabitants of the island. What influence he had, was only due to his personal ability, his common sense, and his actual initiative to take the guidance in certain situations. He generally acted as the spokesman of the community in front of visitors and thereby acquired — in the eyes of the outer world — the position of an appointed governor.[5]

Nevertheless, the actual influence of Peter Green upon the conduct of his companions was by no means inconsiderable. He was a leader, not only in outward matters, and his house was a sort of centre in the little community. But he had his rivals. One of these was obviously Andrew Hagan, the "cattle king", son-in-law of Governor Glass and the richest man on the island. He seems to have been the leading person in a downright opposition against Peter Green's leadership, and the rivalry between the two men went so far that Green, in a letter to the Admiralty, expressed the wish that Hagan and two others should be taken away from the island. Hagan died in 1898, and it is supposed that he took his own life. He was found on the beach with his pulse cut.

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[1] That the name Glass is still found on the island, is due to the fact that one of the sons of the governor, Thomas Glass, who had been away whaling, returned to Tristan some time before 1866 and married a daughter of Thomas Swain. They had several sons who all went away, but three of them again returned and settled down on the island. Two of them brought with them South-African women of Irish origin as wives, and numerous families. The third married a native of Tristan.

[2] See Letter from Peter W. Green to the Admiralty, of Dec. 29, 1884. (Correspondence.)

[3] Already when Earle visited Tristan in 1824, Cotton (or Taylor, as he is named by Earle) obviously had a certain social rank. Being the oldest sailor he used to steer the whale-boat, and, "as is usual amongst all gangs of men engaged either in fishing, sealing, or any boating work of that description, those who are at the helm assume a superiority over their comrades" (1832, p. 309). — Quite possibly Cotton had at that time taken over Fotheringham's office as the chief of the boats owned by the "firm".

[4] See, for instance, Gane (1932, p. 48 sq.).

[5] To him, as the supposed governor of the island, Queen Victoria, in 1896, presented a signed portrait of herself, in acknowledgement of the good work done by the inhabitants in saving lives from shipwrecks, of which there were still many on these islands. This portrait is now in the possession of John Hagan in Cape Town, a grandson of Peter Green.

As yet little notice had been taken of this remote colony by the British authorities, though the group was regarded as forming "part of Her Majesty's dominions". Now and then a war-ship had been sent out to se how the inhabitants went on. But nothing was done on the part of an official administration of the island. It appeared that this was also in accordance with the wish of the islanders.

The first attempt on the part of the British Government to introduce a rudimentary form of administration was made in 1875. The scheme came up when, during the American Civil War, the Confederate cruiser *Shenandoah,* who was cruising in the South Atlantic together with the famous *Alabama,* landed some thirty or forty prisoners on Tristan without providing for them, and when objections were made and the islanders informed the captain that the island was a British colony and under the jurisdiction of the Cape, he just requested them to produce a document that would prove it. This was in 1862. And although the prisoners were soon after taken away, the islanders sought the British Government's protection against a repetition of the occurrence.

But when, in answer to this, the Government proposed to institute a governmental system from outside, with the naval officer in charge of the Cape Station as ex-officio governor of Tristan and one of the islanders as local magistrate, the islanders took alarm. They had no wish for anyone to come from outside to rule over them, and even the plan of instituting a local magistrate met with their great disaffection. It is seen that, though the community had been under a rudimentary governmental control for thirty years, the members' desire to maintain the principle of social equality was strong and lively. The growing dissolution of the community in economically self-dependent families, and the resulting cessation of the intensive co-operation of all its members in all economic affairs, every one being responsible to nobody but himself and his own family, also decreased the urgency of a definite institutional or non-institutional leadership, and created a personal freedom which has been much cherished by the inhabitants ever since. And, on the other hand, time had of the heterogeneous settlement of the old days created a community with a social heritage of its own and a more uniform social attitude, where the social interrelations of the members, as in all simple societies, were regulated by simple rules enforced by common consent or by habit. A governmental control was not felt necessary, and was not wanted.

The governmental scheme was, for several reasons, abandoned for the time being.

Instead the question of an evacuation of the island was again raised, this time, too, by a missionary. In 1880 the second clergyman sent out by the Society for the Propagation of the Gospel, Edwin H. Dodgson arrived at Tristan. He remained until 1884, when he had to leave on account of ill health. Just about the same time that Dodgson arrived, a flat-bottomed American schooner came in to Tristan for provisions. Apparently through carelessness the ship was run on shore on a sandy beach, and a swarm of rats easily made their escape from it. There had been no rats on the island before, but now they rapidly increased and soon became a real plague. "When I left that island in December 1884", Dodgson says in a letter to the Admiralty of March 4, 1886 (Correspondence, p. 37), "the rats were beginning to do such serious damage to the potatoes, the main support of the inhabitants, that it seemed to me that unless some means could be devised for transporting the people to some other place they must inevitably, sooner or later, be reduced to starvation". This, however, has proved, in later years, to be an exaggeration. As yet the people of Tristan da Cunha have not starved on account of the rats.

But soon an incident occurred which was to give the question of an immediate evacuation of the island a serious actuality. That was the loss of the life-boat in 1885.

1885 — And After.

Increasing Isolation.

On the 28th of November 1885 a new life-boat put off with 14 or 15 men to board a ship that was seen some distance from the island. What happened to the boat is not known: it never returned, and the accident is still a mystery.

This loss was a great disaster to the people of Tristan da Cunha, the 14 or 15 men on board representing as a matter of fact, the greater part of the adult male population of that time. After the calamity there were only seven adult men left on the island in a population of nearly a hundred. 13 of the men who perished were married, leaving as many families without support.

The former vicar of Tristan da Cunha, Dodgson, on hearing of this accident, took great alarm. From the reports on the life-boat disaster he concluded that the people of Tristan must already be in great straits, "for under ordinary circumstances they would have regarded it as an act of madness to attempt to board a vessel nine miles to leeward in such dangerous weather", and he most earnestly requested the Admiralty "to arrange for one of Her Majesty's ships to visit the island and ascertain its present condition as soon as possible".[1]

The reports on the accident also caused former inhabitants of Tristan and their descendants in Mossel Bay to forward a petition to the Governor and Commander-in-Chief of the Cape Colony to inquire into the disappearance of the boat, and to examine into the state of the remaining population and give them assistance in case of need.

At the instance of these writings it was decided that H. M. S. *Thalia,* which was then about to leave England for Australia via the Cape of Good Hope, should call at Tristan da Cunha and, if necessary, convey the inhabitants to the Cape. It was also decided to grant them free passage in the *Thalia,* and it was inquired by the Cape Government whether they would provide accomodation and take charge of them. This, however, the Cape Government could only do "upon the understanding that the expenditure incurred be re-imbursed", and stated that "the number of persons out of employment in the Colony is so great that the chance of fresh arrivals obtaining a livelihood by work is hopeless".[2] Upon this attitude on the side of the Cape Government it seems that the plan of transferring the people to the Cape was suspended in expectation of the report of the captain of the *Thalia.*

The *Thalia* reached Tristan on the 5th of August, 1886, and landed Dodgson, besides a considerable amount of stores. In his report, however, Captain Bosanquet could state that the conditions of the islanders were "by no means so bad as had been reported in England, but bad enough to give rise to uneasiness for their future". There was no actual distress. On the other hand he pointed out that "the trade which they used to carry on with passing ships and with whalers no longer exists, as the whalers have almost ceased to call, and the only vessels which touch at the island are small craft, which do not carry surplus stores". Besides "the rats are becoming so numerous that they defy the efforts of the islanders to destroy them, and if they continue to increase at the present rate, it is feared that in a year or two the potato crop will fail, and the condition of the inhabitants will immediately become miserable".

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[1] Letter to the Admiralty, of the 4th March, 1886 (Correspondence, p. 37).

[2] Minute from the Colonial Secretary, Cape Town, dated April 6th, 1886 (Correspondence, p. 47).

However, it seems that the islanders did not want to quit the island and though Mr. Dodgson informed the captain of H. M. S. *Rapid,* who visited the island only twelve days after the *Thalia,* that "the whole of the inhabitants were very desirous of being removed from the island, even at the sacrifice of their cattle — — —, if they could be given a small grant, viz., 5 £ each for a start" (Musgrave), he was, when he left in 1889, followed by no more than 3 adult persons, two of whom later returned.

An organized evacuation of the island was never effected, and the plan was given up for the time being. But, to avoid the consequences of the cessation of the trade kept up by the whaling traffic, which had already caused a considerable depression of the standard of living of the islanders, at the instance of Admiral Hunt-Grubbe, who was then in command of the Cape Station, there was arranged for a yearly visit of a man-of-war, and this arrangement was rigidly kept up until the outbreak of the Boer War.

Nevertheless, though no organized evacuation of the island was effected, the boat disaster and the real distress for many families that followed in consequence of it, besides Dodgson's propaganda, caused a considerable increase in the emigrations from the island. During the next 15 years, 1885—1900, about 60 persons left Tristan. Most of them were widows after the perished men, and their children, but there were also some 15 young men amongst them. As in 1857 most of them went to South Africa and the U. S. A.

Some of these emigrants made a very good living as fishers, whalers, or seal-catchers, but also in different trades on shore, while others never settled down in the new world and, sooner or later, returned to Tristan. Thus, in 1908, quite a number of them arrived, some of them with wives and large families, and settled down on the island. That was the last time that new blood was introduced to the people of Tristan da Cunha.

Previous to this three new settlers had arrived. That was in the nineties. In 1892 the Italian sailing ship *Italia* with a cargo of coal caught fire off Tristan and was run on shore at Stony Beach. The crew made their way over land to the settlement, and again it happened that two newcomers fell in love with Tristan girls and resolved to remain. The two men were Andrea Repetto and Gaetano Lavarello, both Italians and natives of Genoa. The year after another shipwreck again increased the population by one man, viz. a certain George Cartwright who married one of the widows and settled down on the island. The latter only remained a few years and then went away taking his family with him.

Particularly characteristic of the period in the history of Tristan which followed after 1885, is the steadily increasing isolation of the community from the outer world. As already stated, the American whaling traffic, which had been of so great importance to the islanders in keeping up a continuous communication with St. Helena for many years, passed its climax about 1840 and then slowly declined. In his report of August 1886, Captain Bosanquet, of the *Thalia,* could state that the whalers had almost ceased to call, and that during the previous 12 months, i. e. August 1885—July 1886, only two of them had communicated with the island. During the ten years 1904—1913 not more than 13 American whalers touched at Tristan, and after that time they completely disappeared. It is true that, Tristan being situated in the direct route of the clippers, there was, apart from the American whalers, a lively communication with ships that touched at the island: Thus, in 1851, according to a record kept by the Rev. Taylor, the island was visited by 35 ships, and in 1852 26 ships called. And as late as 1876 Captain Brine of H. M. S. *Wolverence,* was informed that "latterly not less than an annual average of 20 ships have called off the settlement for provisions and water". (Correspondence, p. 3.) Though these ships could not keep up any regular intercourse between Tristan and other parts of the world, there was still the opportunity of barter. As a matter of fact, in the course of time Tristan had become what Lambert had dreamt of: a provisioning station for sailing vessels on their way to South Africa and the Far East, where the possibility of getting new supplies of vegetables and meat was taken into account. However, from the end of last century this traffic, too, has rapidly diminished. For the years 1904—1930 a record was kept of ships calling at Tristan,[1] and from this record, supplied by information given by islanders, we get the following figures for the years 1904—1937 (Table 1).

In later years a considerable part of this communication with the outer world was effected by Norwegian whalers that touched at Tristan on their way to and from the whaling fields in the Antarctic, and the comparatively high figures for the years 1922, 1925, 1935, and 1936, are partly due to them. Nevertheless, on the whole the traffic has been

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[1] This record is still in the island archives in the custody of the resident missionary.

Table 1.

Number of ships visiting Tristan 1904—37.

Year	Sail	Steam	Not descr.	Total
1904	6	4	-	10
1905	15	3	-	18
1906	14	4	-	18
1907	6	1	-	7
1908	12	-	-	12
1909	14	8	-	22
1910	7	10	-	17
1911	3	8	-	11
1912	2	4	-	6
1913	3	1	-	4
1914	-	4	-	4
1915	4	2	-	6
1916	2	3	1	6
1917	2	-	-	2
1918	2	4	1	7
1919	-	3	-	3
1920	-	4	1	5
1921	-	-	-	-
1922	-	6	-	6
1923	1	3	1	5
1924	-	-	-	-
1925	1	9	-	10
1926	1	1	-	2
1927	1	2	-	3
1928	-	3	-	3
1929	-	4	-	4
1930	1	2	-	3
1931	-	1	1	2
1932	-	2	-	2
1933	-	3	-	3
1934	1	2	-	3
1935	3	4	-	7
1936	-	10	1	11
1937	1	4	-	5

diminishing to an alarming extent, and it may be supposed that this process had already been going on for several years when the register was begun in 1904.

There are several reasons for this increasing isolation of Tristan da Cunha. One of them is the disappearance of the whales in the waters round the islands caused by constant chasing. But the main reason is evidently the transition from sail to steam in the shipping industry. As already stated, in the old days when the oceanic trades were carried on with sailing vessels, Tristan was a very convenient place as a provisioning station, being situated "in the direct route from Europe and the United States to India, China, and New Holland". With the advent of steam these conditions have totally changed. To-day none of the main trade routes pass within a distance of 2500 km from Tristan da Cunha. The only steamers that are likely to come near the islands are those trading between Cape Town or Durban and Montevideo, and even they often take a more northerly route on account of the bad weather conditions in those latitudes. Moreover, nothing can induce a modern steamer to go out of its course in order to call at Tristan. Since the extermination of the sea-elephant and the seal there is no longer a chance of getting a cargo there. Greater speed and modern modes of preserving food has also made it possible for most ships to carry with them what stores they need themselves, even of vegetables and fresh meat. Consequently, even though ships still call at the island once in a while, there is little or no possibility of disposing of what surplus stores the islanders can produce. The community of Tristan, which formerly had an important place to fill in the world's household, has become superfluous.

In consequence of this the trade, which once was an important factor in the economic life of the community, has not only been reduced to a matter of less considerable note, but has also had to be put in another and less ambitious plane. The barter with passing ships is no longer mainly effected with potatoes, vegetables, and meat. Mats and caps made of penguins' feathers, decorated sheep-skin mats, home-knitted stockings and Guernseys, ox-hide moccasins, models of their canvas boats, these are the things that the islanders can offer in exchange for the things they need. And, of course, these things are of much less commercial value because they are not of any vital interest to the buyer. To him they can only be what they really are: curiosities. Consequently the barter, which was formerly a sound and fair trade, has been reduced to what appears to a European as a sort of disguished begging, though none of the islanders are conscious of this fact.

It is quite obvious that this reduction of the trading intercourse with other parts of the world or with ships passing the island, could not fail to cause a considerable reduction in the islanders' standard of living. Soft bread and flour, sugar, coffee, and tea soon became luxuries, and more and more the islanders were thrown upon themselves and the products of their own island. These conditions, consequently, in the first instance led up to a more intense utilization of the natural resources of Tristan itself, and as this utilization was not limited by restrictions of any kind it soon resulted in the extermination of the bird life on Tristan which we have referred to above, and which, of course, in turn made the situation still worse.

Moreover, the increasing isolation finally took away the chance for the community of an expansion in a wider social order; the possibility of an outlet for its younger members that the whaling traffic had offered no longer existed. Thus the exhaustion of the natural resources of Tristan was coupled with an increased growth of the population. In fact, over-population now became a serious problem in Tristan da Cunha. It should further be remembered that this isolation also was a cultural isolation, and it was induced upon the Tristan community just in a period of rapid progress of civilization and increasing specialization in the rest of the world, making the breach between Tristan and the outer world still deeper and wider.

Various attempts have been made to keep up an economic intercourse between the island and the outer world. As already mentioned, in 1886 there was arranged a yearly visit of a man-of-war from the Cape Station at Simonstown, and the purpose of these visits was obviously to compensate for the American whalers and give the islanders a new opportunity of trading with other people; for, as gratuitous supplies were considered unnecessary, or even morally detrimental, it was laid down as a general rule that no provisions or stores were to be issued to the inhabitants, except on repayment in money or in kind.[1] This artificial form of "trade", based as it was, not on mutual interests, but on the benevolence of the British Government, was kept up until the outbreak of the Boer War in 1899, and it was never tried again in that form.

In 1907 an attempt was made by a certain Mr. Keytel, of Cape Town, to start a real trade with the islanders, in sheep and dried fish. He arrived in March of that year in his schooner, the *Greyhound,* to inquire into the feasibility of such a trade. Next year he returned intending to stay for one year to start the industries, and, as a matter of fact, 200 sheep were shipped for the Cape market. Even the fishing industry was taken in hand. On the 20th November, 1908, the men signed an agreement to work for Mr. Keytel for three years, a storehouse was built and a quantity of fish slit up and salted. But the plan soon had to be given up, partly because of the uncertain weather conditions and the want of a decent harbour,[2] partly because of the poor quality of the articles to be sold: the sheep on the island were infected with scab, and the fish-drying proved a failure on account of flies and moist air.

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[1] See draft letter from the Admiralty to Rear-Admiral Sir Walter Hunt-Grubbe, K. C. B., dated Nov. 20, 1886 (Correspondence, p. 61).

[2] A diary kept by Mrs. Barrow, the wife of the missionary resident on Tristan at that time, clearly shows the difficulties to be encountered when loading goods from the island (see Barrow, 1910, p. 204 sq.).

Another reason evidently was that the people, after all, did not want to work under Mr. Keytel. They did not "pull together", as Mrs. Barrow puts it.

It must soon have become clear that the artificial "trade" kept up by the British warships from 1886 on could not compensate for the brisk trade that had been carried on with whalers and other ships passing the island. The islanders' needs of food, clothing, and other materials could not be satisfied in this way. And when, in 1904, a warship was again sent to the island, it was thought necessary to support the islanders with gratuitous supplies. At the same time preparations were made for the final evacuation of the island. Through an agreement between the British and the Cape Governments it was arranged that, provided all the inhabitants wished to leave, they should have a free passage to the Cape, and the two Governments would purchase their live stock from them and settle them on the coast within 100 miles of Cape Town, with about two acres of land each on rent, and money on loan to start their homes. They were also given to understand that in their new homes they would have the opportunity to start fisheries to supply the population of Cape Town — and that in future, if they wished to remain, they could not rely upon a yearly visit of a man-of-war. Even this favourable offer was rejected by most of the inhabitants, only three families out of eleven choosing to go. Accordingly the offer was withdrawn.

The question of evacuation was, at the request of the British Government, again discussed with the islanders in 1907 by the Rev. J. G. Barrow, who served as a missionary at Tristan during the three years 1906—09. The inhabitants, however, were unanimous in their decision to stay, "and said they would rather starve there than at the Cape". And when the question was raised for the last time in 1932, it was with the same result.

The firmness of the people's resolve to remain on the island is the more noteworthy as their facilities for making a living on a sound economic basis had constantly diminished during the first decades of this century. But, as a matter of fact, the islanders are only half — if at all — conscious of this fact. It is true, there have been privations of many kinds, and even starvation has not been unknown to the islanders at times. However, the people of Tristan are frugal to an incredible degree. Besides there were still the steamers, though few, where the islanders could sell their curios, or even, once in a while, a cow or a sheep, potatoes or a few geese. Probably most of the men's clothing and a not inconsiderable quantity of victuals were still procured in that way. Finally, the islanders have lately been fairly regularly supplied with gifts from the outer world. It is true that, when the official offers of transmigration of the whole population to the Cape were rejected in 1904 and 1907, the British Government considered itself as released from all obligations to the people of Tristan, and the official visits of warships were discontinued for many years to come. But the impression had been given in England that the islanders were in great distress, and a quite successful activity was taken up by the Society for the Propagation of the Gospel and other institutions to collect gifts for the island. Petitions were sent to the British Government, which undertook the provision of transport of mails and stores, either by a man-of-war or by such means of communication as might present itself. This traffic commenced just after the Great War, and from 1926 onwards there have been yearly visits of ships bringing stores and mail from England.

These supplies have of course been a great encouragement to the islanders, and they have certainly saved them from many privations. But, on the other hand, this policy has closed their eyes to the fact that if the island should again become self-supporting, its economy had to be put on a new footing which would enable the islanders to take up regular trade with the outer world. To-day "the Big Mail" with all that it brings of gifts and gratuitous supplies is simply taken into account by the islanders, and thus it may be said that the regular support of the islanders, right against its intention, only tends to make them more and more dependent on the benevolence of the outer world.

As to the inner structure of the community, the boat disaster of 1885 seems to have caused a temporary stoppage in the development of the increasing self-dependence of the families which has been a characteristic feature throughout the history of Tristan da Cunha. The situation resulting from this calamity with 13 families without possibilities of supporting themselves, was not very favourable for an economic and social organization based on the self-supporting family, and quite naturally created a new feeling of solidarity within the community as a whole. A manifestation of this solidarity was given in the way the widows and their families were treated. To support these widows and children was obviously regarded, at least in part, as a public duty incumbent on the whole population as one body. And it was always seen that the widows got a good share of goods that the islanders were in receipt of from some passing ship or otherwise.[1]

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[1] This public care of widows is repeatedly mentioned by Barrow.

However, this intensification of the group consciousness of the Tristan islanders, and of their feeling of solidarity of the whole group, was only a transitory phenomenon. The community soon recovered from the serious consequences of the life-boat disaster, as most of the widows went away with their families, and the others were supported by their grown-up sons. Moreover, as we have seen, the importance of the communal trade with passing ships, the last economic foundation for the solidarity of the whole group, was steadily decreasing. Actually, the reduction in trade, which resulted from the increasing isolation of the island, made private barter with smaller and less valuable articles more convenient. Thus even in this respect the individual family was thrown upon itself.

In this community there was little need of a leader. Peter Green was one, as we have heard, because of his outstanding personality. He died in 1902. But soon after his death the community found a new leader, though not of the same capacity, in Andrea Repetto, the Italian. He was married to a granddaughter of Peter Green, so that in some way he may be said to have continued the dynasty of Peter Green. He acted as the spokesman of the community in outward matters, and had a certain authority among his companions which made it natural to choose him as Lay Reader when Barrow left Tristan in 1909. This office, however, he only held for two years. He died in 1911.

But Repetto, too, like Green, had a rival. This was Bob Glass, a grandson of the founder and first governor of the settlement. His full name is Robert Franklin Glass. He was born in 1872 but left the island in 1888 after his father had been lost in the life-boat. He then went to sea in South African and American ships and for a short time served as 3rd mate in the barque *Levallow*. Later on he spent 13 months at Gough Island together with several men, five of whom were also emigrants from Tristan. They were sealing for the firm Ben-Susan in Cape Town. After having served as a British scout and won a gallantry medal in the Boer War, he settled down in South Africa, working, partly as a foreman, in different factories, first in Cape Town, then in Orange River Colony. In Cape Town he married a girl og mixed English-Irish origin, and with her and several children he returned to Tristan in 1908 in the *Greyhound*.

Besides old Andrew Hagan, the "cattle king", Bob Glass is probably the only person on Tristan who has had any definite ambitions with regard to leadership and has tried consciously to gain a position at the head of the community. To this end he asked the Rev. Barrow to be allowed to preach on Sundays when he was gone, which, of course, would give him a certain status among his companions. This, however, was refused, and probably he had no great influence as long as Repetto lived. But after the death of the latter he entitled himself "Head-man", and, according to his own informations, he also really acted as such, not only in outward matters. Another islander, however, gave him the following unflattering testimonial: "He's done everything when he talks, but when you look into it, he's done nothing."

However, his leadership, like that of his predecessors, was only a personal one. He was never chosen head-man by his companions and had no office whatever from them. His influence was only due to his actual initiative to put himself at the helm. Moreover, there were other outstanding persons with whom he had to share his influence, first of all Frances Repetto, the widow after Andrea Repetto, and her brother Henry Green. As a matter of fact, there developed a sort of concealed rivalry between the two "dynasties" Glass and Green—Repetto creating a certain antagonism between the two clans, traces of which may still be observed to-day. However, there was no actual opposition against the leadership of Glass as there were no other persons with similar ambitions that could bring about an open conflict. But it was still the opinion of most islanders that an institutional head-man was not needed, nor wanted, and so the "chieftainship" of Bob Glass was met with ignoration by the greater part of the population.

But Glass' "chieftainship" had a sudden end. The people's growing dependence on benevolent support had raised the question in England of how the islanders could be made more selfsupporting. It was felt that the want of a commonly recognized leader was a main obstacle to improvements, and it was suggested, therefore, that the missionary in charge should be endowed with certain administrative powers. With these ideas a new missionary, A. G. Partridge, arrived in Tristan in 1929, and obviously in Bob Glass soon saw a rival to his planned position as the "Magistrate" of the island. In a meeting of all the men Glass was simply "discarded".[1] A few years later Partridge was really appointed

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[1] This act has been recorded in the following entry in the "Boarding Book" referred to above:

10 December 1929.

This book was taken from R. F. Glass by the Rev. A. G. Partridge, Priest in Charge, with the unanimous consent of all the men of the island.

This meeting decided that Captains & officers of all vessels visiting this Island are to be informed that the said R. F. Glass (Bob Glass) has no locus standi or position of any sort.

(Signed) A. G. Partridge
Priest in Charge
(Signed) Philip Lindsay
Lay missioner

H. M. Commissioner of Tristan da Cunha, and, to put any influence of the Glass "dynasty" entirely out of court, he appointed a Council of islanders, the members of which were for the most part related to the Repettos by blood or through marriage, and with Joe Repetto, a son of Frances, as "1st Officer". The latter was soon replaced by his elder brother William Repetto who was entitled "Chief Man", while Frances Repetto was appointed "Chief of the Women".

This was the first attempt really made to introduce a governmental control in Tristan da Cunha, and it is characteristic of the islanders' attitude to any such control that the system was only at work as long as Partridge stayed on the island. When he left, it was simply ignored, and the only trace of it is that William Repetto has got "Chief" as his nick-name and still acts as the spokesman of the community in front of visitors, Bob Glass being now too old to take up a competition.

3. The People.

Some Demographical Data.

The present population of Tristan da Cunha descends from 15 individuals, 8 men and 7 women, who settled on the island at different times during the last and this century. These persons are the following:

Men:

1.	William Glass. Scotch, born Kelso	Arr. 1816
2.	Alexander Cotton. English	» 1821
3.	Thomas Swain. English, born Hastings	» 1826
4.	Rogers. American	» 1836
5.	Peter William Green. Dutch, born Katwijk	» 1836
6.	Andrew Hagan. American	» 1849
7.	Andrea Repetto. Italian, born Genoa	» 1892
8.	Gaetano Lavarello. Italian, born Genoa	» 1892

Women:

9.	Maria Magdalena Leenders. "Cape Creole", born Cape	Arr. 1816
10.	Maria Williams. "Coloured", born St. Helena	» 1827
11.	Sarah Williams. "Coloured", born St. Helena	» 1827
12.	Mary Williams. "Coloured", born St. Helena	» 1827
13.	Susannah Philips. "Coloured", born St. Helena	» 1863
14.	Elizabeth Smith. English-Irish, born Kilkenny	» 1908
15.	Agnes Smith. English-Irish, born Cape	» 1908

As will be seen, the people of Tristan da Cunha are of a rather mixed origin. All the male ancestors were white people, either Europeans, or Americans of European origin. But they were of the most different nations: one of them was a Scotchman, another a Dutchman, two were Englishmen, two Americans, and two Italians. The origins of the two Americans are not known, but obviously they were white people. One of the women is reported to have been a "Cape Creole"; she seems to have been a "coloured" woman, but according to her sur-name, Leenders, her father was presumably of Dutch origin. Two sisters who settled on Tristan in 1908, Nos. 14 and 15, were of mixed English-Irish origin. The remaining four came from St. Helena and are reported to have been of mixed European and "coloured" origin. Their exact origin, however, is not known. Nos. 10 and 11 were sisters, but only one of them, Sarah, is known for certain to have had an English father. No. 12 was her daughter. Above all it is not known whether the "coloured" part of the ancestors of these women were Negroes or Malays, or both.[1] However, from the anthropological types present in Tristan to-day it may be concluded that both races were represented in this blood mixture.

The population of Tristan da Cunha comprised 188 individuals in March 1938, 103 males and 85 females. The distribution of the individuals in the different age-groups is shown by Table 2.

Table 2.

Distribution of population in various age-groups 1938.

Age	Males			Females			Sum	
	Marr.	Sing.	Total	Marr.	Sing.	Total		
Under 15 years ...	0	38	38	0	33	33	71	37.8 %
15—29 years	5	21	26	7	12	19	45	23.9 -
30—44 »	20	4	24	19	0	19	43	22.9 -
45—59 »	4	0	4	7	0	7	11	5.8 -
Over 60 years	10	1	11	7	0	7	18	9.6 -
Total	39	64	103	40	45	85	188	100.0 %

An accurate census of the islanders was taken in 1906 by the Rev. Barrow, and in 1926 by A. D. Marshall, on the R. R. S. *Discovery*, and the corresponding figures for these years may be of some interest for a comparison. They are given in Tables 3 and 4.

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[1] Malays were at an early date brought to St. Helena by the British East India Company as slaves.

Table 3.

Distribution of population in various age-groups 1906.

Age	Males			Females			Sum	
	Marr.	Sing.	Total	Marr.	Sing.	Total		
Under 15 years	0	19	19	0	15	15	34	47.2 %
15—29 years	1	2	3	3	4	7	10	13.9 -
30—44 »	7	3	10	7	1	8	18	25.0 -
45—59 »	2	0	2	1	0	1	3	4.2 -
Over 60 years	0	0	0	5	2	7	7	9.7 -
Total	10	24	34	16	22	38	72	100.0 %

Table 4.

Distribution of population in various age-groups 1926.

Age	Males			Females			Sum	
	Marr.	Sing.	Total	Marr.	Sing.	Total		
Under 15 years	0	29	29	0	25	25	54	38.6 %
15—29 years	11	17	28	10	7	17	45	32.1 -
30—44 »	5	0	5	8	1	9	14	10.0 -
45—59 »	8	1	9	10	0	10	19	13.6 -
Over 60 years	4	0	4	4	0	4	8	5.7 -
Total	28	47	75	32	33	65	140	100.0 %

Obviously this material is much too small for a statistical study of the growth of population. Moreover, the population of Tristan da Cunha has had a very irregular growth, and of course in such a small community any irregularity will cause disproportional disturbances in the statistical figures. Thus in the life-boat disaster of 1885 15 men perished, comprising ⅔ of the adult male population of that time. And on two occasions the population has been reduced to the half through emigration: in 1857 and after 1885. These facts have markedly reduced the figures for certain age-groups, with a correspondingly higher percentage for others. Thus the life-boat disaster in 1885 and the following emigrations have caused a complete absence of males over 60 in 1906 and a considerable reduction of the age-groups 45—59 in 1906, over 60 in 1926, and to some degree also of the age-group over 60 in 1938. Moreover, the reduction of the procreative age-group in 1885 and the following years has also caused a corresponding reduction of the birth-

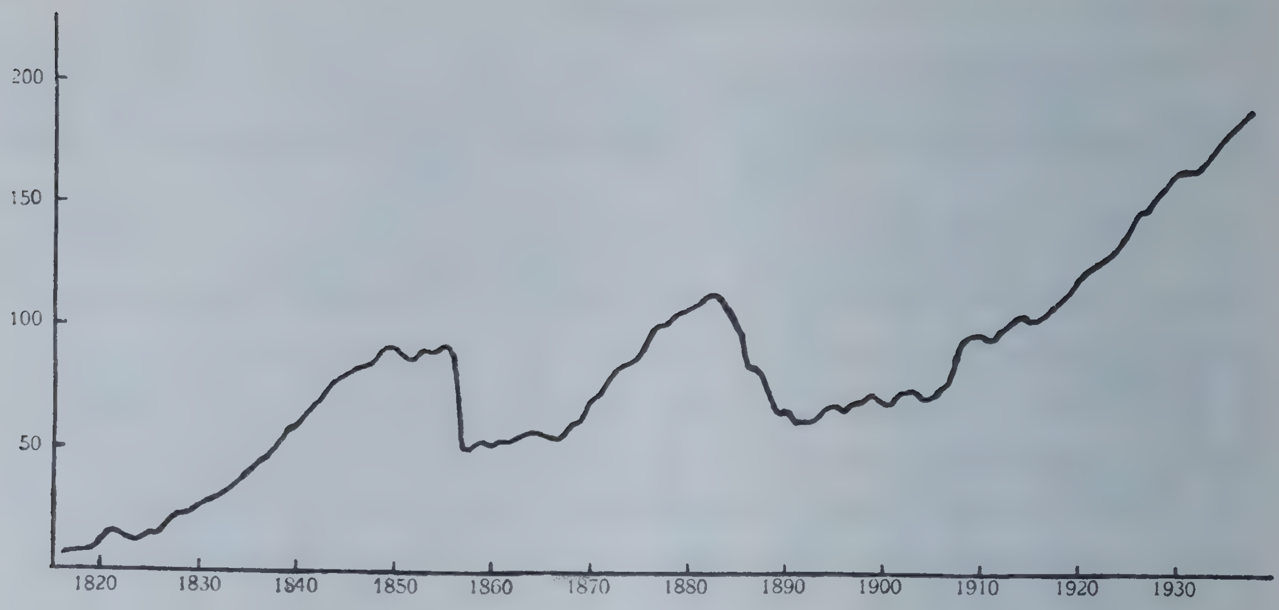

Fig. 6. Growth of population.

rate for these years, which is seen from the comparatively low figures for the age-groups 15—29 in 1906, 30—44 in 1926, and 45—59 in 1938.

Too much weight, therefore, should not be laid on the remarkably high percentage of children in this community, nor on the corresponding fact that the population has increased from 72 in 1906 to 188 in 1938 (more han 160 % in the course of 32 years!). No definite conclusions can be drawn from these figures regarding the fertility and normal growth of the community. On account of the limitation of the material and the irregular growth of the population it is also impossible to give any definite figures for natality, mortality, or the average duration of life. In accordance with the physical health of the people [1] the mortality seems to be low, and under normal conditions the average duration of life would probably appear to be comparatively long. The fertility seems to be about the same as in an average rural community in Europe, or perhaps a little higher. There is some evidence, however, that the fertility has diminished in the course of time.[2]

On the other hand, the frequency and the average age of marriage have not changed much throughout the history of the community, in spite of the fact that the difficulties to be encountered when starting a new family (the erection of a decent dwelling, etc.) have been much greater in recent years than they used to be. The frequency of marriage is the highest possible, *i. e.* 100 % for the smallest sex-group, in this case the women. Table 2 shows that in 1938 there was no unmarried woman

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[1] See the medical report by Henriksen and Oeding (1940).

[2] For the question of natality, mortality, etc., see Henriksen and Oeding (1940, p. 78 sq.).

Fig. 7. Man, 43 years old.

Fig. 8. Man, 34 years old.

above the age of 30. Actually there was no unmarried woman above the age of 25. The average age of marriage may seem rather high for such a primitive community as this, but is probably about the same as in most European countries. The age at marriage has lately varied between 19 and 45 years for men, and between 15 and 41 years for women, with an average of 25 for men and about 24 for women for the last 40 years (1898—1937). The greater part of these marriages, however, have been contracted by men in the age of 19—25 years, and by women in the age of 18—25 years. Among 23 men born in Tristan who married during the period 1852—1900 the average age at the date of marriage was 26, and for 29 native women married during the period 1836—1900 the average age was 22. These figures must be taken with some reservation because of the partly uncertainty of the data on which they are based. 1901—20 11 couples contracted marriage, and the average age of both men and women was 26. The corresponding figures for 21 marriages contracted 1921—37 were 25 and 23 for men and women respectively, which shows a decline in the marriage age from the period 1901—20. This tendency becomes still more apparent if we divide the period 1921—37 in two: 1921—30 marriage was contracted by 12 couples, and the average age was 25 for men, and 24 for women; the remaining 9 marriages contracted 1931—37 show an average age of 25 for men, and 21 for women. On account of the limitation of the

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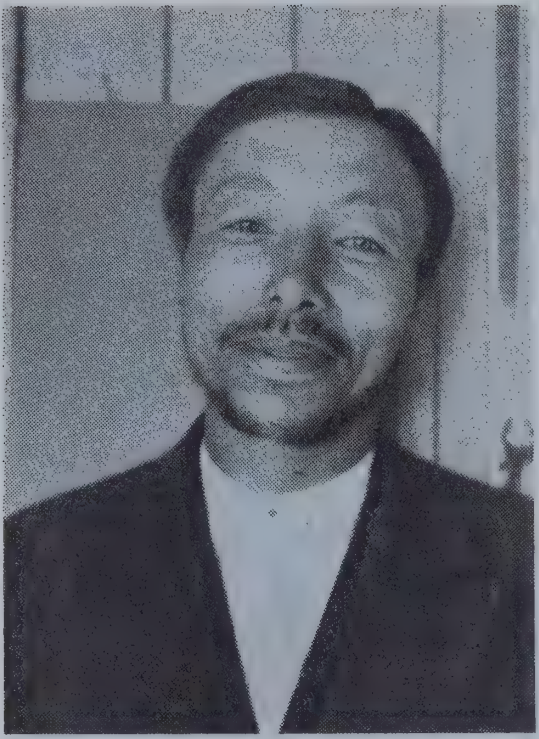

Fig. 9. Man, 36 years old.

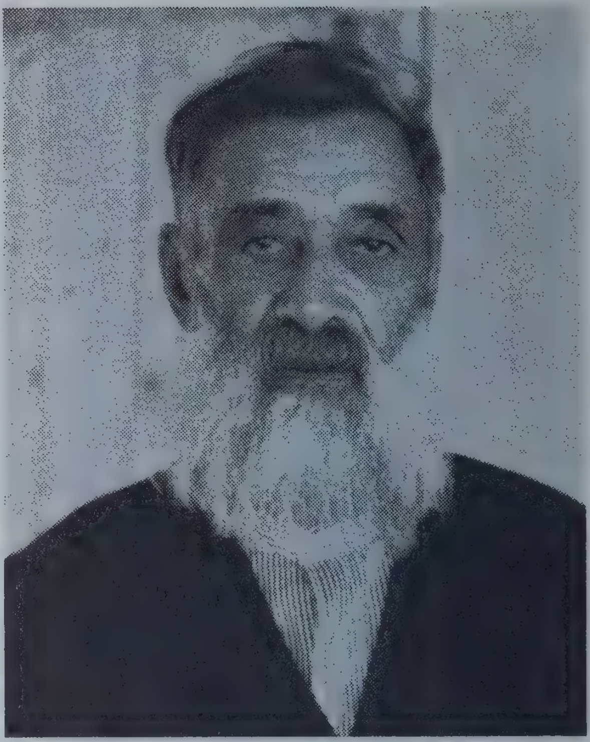

Fig. 10. Man, 80 years old.

material, however, no definite conclusions can be drawn from these figures.

Of course, in so small a community, with its very limited contact with the outer world, there has been a marked degree of inbreeding. Though the English missionaries have introduced also in Tristan the wide-spread idea that a marriage between close relatives may be disastrous for the offspring, and though the islanders speak a little contemptuously about marriages between persons of the same surname ("a Green upon a Green", "a Swain upon a Swain"), there seems to be no actual objection on the part of the community against such marriages, and cousin marriages are quite common. Out of 51 marriages contracted since 1875, 16 were cousin marriages. But it does not seem that this strong inbreeding has had any disastrous consequences for the population. There are no signs of degeneration, either physical or mental.[1]

According to their pedigree, of course, the Tristan islanders must be described as hybrids. It is true that the greater part of their ancestors were white people. But as the "coloured" blood was introduced at an early date in the history of the community there is no person living on Tristan to-day who has not a greater or smaller "coloured" admixture in his pedigree, varying from $^3/_{64}$ to $^3/_8$ (assuming that the immigrated

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[1] The question of inbreeding is more fully treated in the medical report (Henriksen and Oeding, 1940, p. 6 sq.).

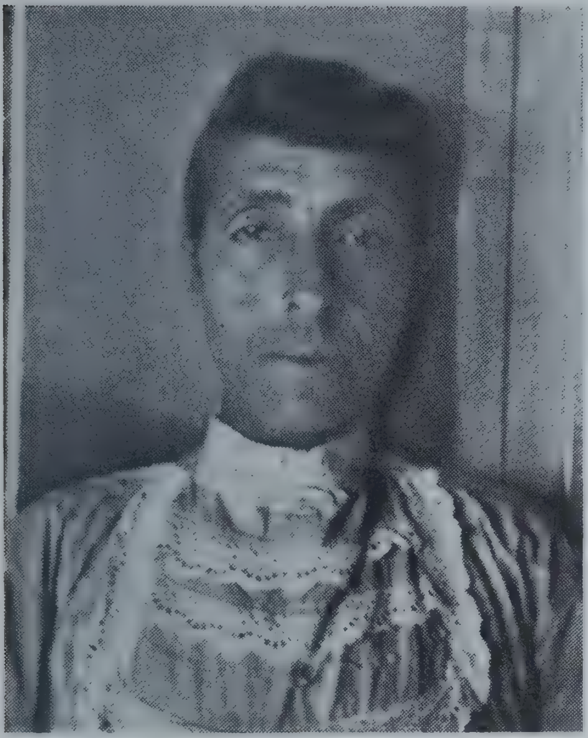

Fig 11.

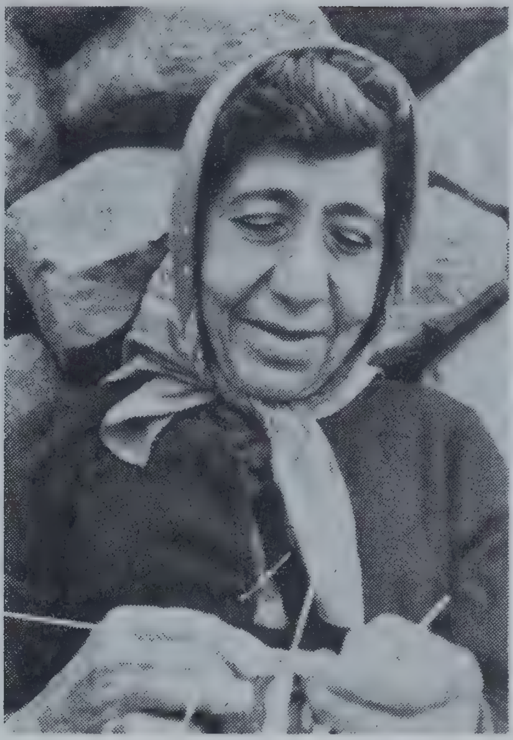

Fig. 12.

Fig. 11. Woman, 49 years old. Note typical frontal decoration of blouse.
Fig. 12. Old woman knitting (69 years old).

"coloured" women were by ½ Negro-Malayan and by ½ European). The only exceptions are two immigrants, a man and a woman, who still live in Tristan.

Needless to say, this crossing of races has more or less impressed the outer appearance of the islanders. More or less, for, here too, the result of race crossing is not a homogeneous, new "race". Taken as a whole, the community of Tristan gives a remarkably heterogeneous impression, and it is impossible to state a certain physiognomical type as typical for Tristan. The greater part of the islanders look quite European, with fair hair, blue or grey eyes, a light skin, and nothing in their features that would divulge their "coloured" origin. But there are also many dark-skins, though markedly negroid persons are comparatively rare. One type is quite common, especially among the older women, with sleek hair, comparatively large jaws, a long nose, and on the whole coarse features, and very often with a dark skin, and these features seem to indicate that a not inconsiderable part of the "coloured" blood introduced by the four women from St. Helena was Malayan blood.[1]

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[1] A thorough examination of the anthropology of the people of Tristan would certainly be of great interest, but was not included in the programme of the Norwegian Expedition. Some anthropological data, however, were collected and are published in the medical report by Henriksen and Oeding (1940, p. 37 sq.).

Curiously enough, the coloured skin seems to be a dominant hereditary factor in certain families, but there is no correlation whatever between the colour of the skin and the percentage of "coloured" admixture in the pedigree.

Mental Capacity.

It has been maintained by authors of the Eugenic School that the hybrid *eo ipso* is a person of inferior mentality, psychically and morally unbalanced and unfit to live under the conditions of a social order. It does not seem just to apply such a description to the Tristan islanders. They are backward in many ways, but this seems rather to be a consequence of their social and cultural isolation than of their mixed racial origin.

When trying to make a judgment of the mental capacity of people of a foreign culture, we are faced with one great difficulty: we have no means of measuring on the basis of which we should be able to make a just and objective judgment. It is true, there are different testing systems for measuring mental capacity, and it was the writer's intention to test the intelligence of every individual on Tristan by means of one of these systems. The result of the first trial, however, was very disappointing and obviously gave a false picture of the intelligence of these people. The tests proved to be most inadequate for the special environment and social heritage of the Tristan islanders.

The following is a report of the procedure of testing, with the reasons why the result, in the writer's opinion, did not give an adequate picture of the intelligence of the persons tested.

With regard to the test material to be chosen, I was advised to use the Cattell Group and Individual Intelligence Tests, prepared by R. B. Cattell. There should be no objection to using a verbal test, as English is the vernacular of the islanders, and it was reported by English missionaries that "every one on the island" could read and write. Moreover, the Cattell Tests were reputed to be most highly saturated with 'g' (general mental ability), thus precluding the influence of any acquired abilities and other cultural factors. Finally these tests had the advantage of being standardized in England, which would allow a comparison with the average English intelligence.

The first group to be tested consisted of seven young men between the ages of 16 and 21 years. They were tested with Scale III, Form A of the Cattell Tests (mental ages 15 years and upward). It had then become clear to me that these people were absolutely unfamiliar with an examination situation, and that the whole nature of the problems with which they would be faced in the tests was something quite new to them. I therefore gave an oral and more detailed explanation of the two first subtests in the preliminary Practice Test, as I feared they would other-

Fig. 13. Mother and daughter.

wise miss the very point of what they were wanted to do. Otherwise I followed the instructions in the Handbook.

The result of this first test was indeed very feeble. Only one of the testees had made an (awkward) attempt to answer one of the questions in Test 1. Otherwise there was not a single stroke of the pencil in the booklets!

This result, in my opinion, was due to a misconception of the whole situation. Evidently the testees had not understood what they were wanted to do or how they were wanted to do it. So I resolved to test the same group again and try if a more thorough, oral, explanation of each test would bring a better result.

This test was performed 12 days after the first one, and this time I used Scale III, Form B of the Cattell Tests. First I went through and explained the whole of the preliminary Practice Test, telling them in each case what to do and why to do so. Then I read to them and explained the instructions for each new test and always tried to make sure that they had understood the instructions before I let them start. Nevertheless, I allowed them the full time prescribed to perform the tasks set in the tests. Test 2 and 4 were divided into a) Words, and b) Figures, and 5 minutes were allowed for each part (instead of 11 minutes for the whole test). New instructions and explanations were given for the figures.

The result of this test was considerably better than that of the first one. This time, in any case, all the testees except one had perceived the point in at least some of the tests. But the scores were still very low: 24, 11, 6, 5, 4, 3, and 0. This would give an I. Q. for the best person far below 50. And even here some of the scores seem to have been obtained by sheer chance.

The question was now whether it would be fair to judge the intelligence of the tested persons in accordance with these results. According to the general impression that I had of the mental abilities of the persons concerned, I had to answer the question with a definite no. For the following reasons, which afterwards became quite clear, these tests could not give a reasonably fair impression of the average intelligence of the Tristan islanders.

(1) As already mentioned, the islanders are absolutely unfamiliar with an examination situation. In civilized countries children are, at school, repeatedly put in a situation where they are made to understand that their yieldings are more important than under ordinary circumstances, where they are expected to do their very best in a limited space of time and, as a rule, quite clearly understand why this situation is more important than others. Probably none of the Tristan islanders has ever been put in a situation like that, and thus the very notion of being tested was something quite new to them, itself a problem that they did not understand. And that familiarity with the situation may affect the result of the testing, is also admitted by Cattell (1936, p. 6).

(2) The islanders' facility in reading and writing was much smaller than at first expected. As a matter of fact only about 50 % of the women and less than 30 % of the men could read and write, and even for most of them the perception of the meaning of a printed sentence would probably demand a considerable amount of brain work. Practically none of the children had ever had any real practice in reading, and the handling of a pen or a pencil was completely unfamiliar to them.

(3) The Tristan islanders have not the general logical training which in more civilized countries follows from a more regular schooling. They have probably never in their lives been confronted with mental problems of the nature that are found in the tests, or with any kind of mental problems. Of course, this training does not affect intelligence itself: natural inborn capacities cannot be altered through training. But obviously the ability to make an effective use of these capacities may be the object of training. "The person who has gone to school is used to being confronted with mental problems and attacks them with much less uncertainty and hesitation" (Porteus, 1937, p. 215 sq.). This I consider to be an essential factor in mental testing, which may well account for the poor result of the tests made in Tristan. It is true that during the last 15 years there has almost continually been a missionary on the island, one of whose most important tasks, besides church-keeping, should be the keeping of a school. But this school-keeping has only been concerned with a little reading and writing and could not give any appreciable degree of general mental training. Its lack of efficiency is seen from the fact that so few persons can read and write.

(4) But the most serious obstacle against judging the intelligence of the Tristan islanders by means of the Cattell Tests is the very limited outlook that the islanders have, and which is a consequence of their marked isolation from the outer world. Though in forming these tests there has been adopted as a guiding principle "to expect only a bare minimum of (general) knowledge on the part of the subject as a working

basis for the mental operations dealt with by the test (Cattell, 1935, p. 8), they imply a knowledge of a great many things which belong as a natural part of the social heritage of the English, but is unknown to the people of Tristan. There is firstly the very limited vocabulary of Tristan speech. Thus Test 1 in Scale III, Form A of the Cattell Tests contains at least 14 words that are probably unknown to the islanders. And, of course, the same difficulty applies to the other tests that are concerned with the meaning of words. Here we may also mention the fact that many words are used in another sense in Tristan than in ordinary English. Further, the Tristanites would in these tests repeatedly be faced with the task to imagine a situation or an event which is more or less familiar to every English child, but whose premisses are completely unknown to them. This is particularly the case in Tests 5 and 6. One might object that the ability to imagine is an intrinsic trait of intelligence; but no one will deny that it is much more easy to imagine a situation which is analogous to frequently experienced situations than to form an idea of absolutely unknown things. To take just one example from the second sub-test in Test 5, Scale III, Form B, it is much more easy for an Englishman, though he may have grown up in the country, than for a Tristan islander to imagine a street accident. The Englishman probably knows the premisses: the city street with all its dangers. The Tristan islander has never seen a motor-car and probably wanders whether it moves much quicker than his own bullock cart. Moreover, the Englishman knows that street accidents are more frequent now than they used to be, and so the whole test is in this case more a test of knowledge than of intelligence. Many of the tests also imply a certain training and skill in arithmetic, familiarity with money and coins (which do not exist in Tristan), etc., etc. Lastly we may mention that even the non-verbal tests in Tests 2 and 4 in Scales II and III, as well as many of the tests in Scale I, meet with similar difficulties. These tests are only dealing with geometrical figures and thus belong to a category of tests which, according to Cattell, are particularly useful in inter-racial comparisons (1936, p. 3). However, to my opinion, even here a cultural factor may affect the result of the tests. People in England and other European and Non-European countries are accustomed to geometrical figures; they frequently meet them, not only at school, but also in their every-day life as decorations on walls, lists, plates, cups, chairs and other furniture, cars, etc., etc., and, though they may be unconscious of it, they get a certain training in perceiving regularities and irregularities, congruences and similarities in geometrical figures. In Tristan da Cunha they miss this training as there is no decorative art of any kind.[1]

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[1] As the writer is no psychologist by profession, it is not his task here to give a general criticism of the Cattell Intelligence Tests from his own experiences with them. It is interesting, however, to note that the objections given above against using these tests as the basis of a judgment of the average intelligence of the Tristan islanders partly coincide with the general objections made by Klineberg (1935, p. 152 sq.) and, after him, by Porteus (1937, p. 7 sq., 215 sq.) against using the current mental tests as the basis of inter-racial comparisons.

For these reasons I resolved to give up my original plan of taking an intelligence test of every individual on Tristan, and consequently undertook no more tests.

It may be objected that a more adequate result might have been obtained by using Scale II of the Cattell Tests, as this test would be more convenient for the range of intelligence to be expected in Tristan (cp. Cattell, 1936, p. 15). However, the objections given above obviously apply to all scales of the tests. Moreover, most of the islanders seemed to look at these tests and the possibilty of being tested by them with a not inconsiderable fear which might have affected their yieldings in case they were tested. As a matter of fact, from the resident missionary the islanders had received the impression that the Norwegian expedition was, somehow, sent out by the British Government in order to "inspect" the island and to write a report that would be decisive for the future of the island and its inhabitants — and the islanders readily believed that the British Government occupied themselves a good deal with Tristan da Cunha. Concerning the writer's department of this governmental task, it was announced to be everything in connection with the houses and with education and knowledge, and he was always in front of islanders honoured with the mysterious title of "Educational Officer". Obviously this attitude on the part of the missionary created a certain suspicion on the part of the islanders against everything that had the appearance of examination or inspection, and this was not only very unfavourable for a successful intelligence testing, but also affected the general condition of confidence which I tried to establish between the islanders and myself, and which was essential for a successful performance of my sociological work. Therefore, when I decided to abandon the intelligence tests, it was also to avoid everything that might be taken as a confirmation of the missionary's announcement, and make me still more suspicious in the eyes of the islanders. There was also the question of time, as we had only a very limited amount to our disposal.

The intelligence of the Tristan islanders, as judged from a subjective impression, is on an average not lower and not higher than the average intelligence of a rural community in Norway, i. e. presumably about the same as in any rural community of Western Europe or the United States. They have good common sense to judge a situation which falls within their range of experience. They are quick to see a joke and, as a rule, have a remarkably good replication. They also have a good knowledge of human nature, and quite easily penetrate into the thoughts and motives of another person, though he may try to conceal them.

Their learning capacity may be said to be well developed. It is certainly true that comparatively few persons can read and write — only about 50 % of the adult women and 30 % of the adult men, and this must be said to be an amazingly low percentage considering the fact that missionaries have been resident in Tristan almost continually during the last 15 years, and that the total population never exceeded 200 individuals. But this is only for a small part due to laziness or inability to learn on the part of the islanders. They are, as a rule, anxious to "git'e larning", *i. e.* to learn reading and writing, and they quite clearly see the inefficiency of the school that has been kept in Tristan in later years. Many of them try to teach their own children at home what little they know themselves.

They are rather quick of apprehension, and easily get familiar with new things. We had a young girl who came to our house every day to do the cooking, and it was amazing how quickly she acquired familiarity, not only with the European way of cooking and with the handling of flour, sugar, condiments and other ingredients which are only sparingly used in Tristan, but also with the use of the different utensils that belong to the equipment of a modern field kitchen, many of which were quite unknown to her before. Even a "Primus" (oil stove) was handled perfectly by her from the very first day after having been shown once how to light it. After a day or two the kitchen with all the cooking and baking could be left entirely to her. Neither was there any difficulty in teaching a couple of islanders how to handle a motor, and they quickly picked up what small wrinkles we could teach them, e. g. to put a handle on a tin by means of a small stick, etc. This quality may be a trait of temperament rather than of intelligence.[1] But obviously it has an important bearing on intelligence as well.

Of course, there are differences in intelligence between different individuals. There are a few persons whom I should describe as very intelligent, and others who seem to be gifted with very small mental abilities. Directly dull persons are also found, and there is one idiot.

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[1] Thus Cattell makes quickness of apprehension a principal trait of a surgent (or extravert type of) temperament (1936, p. 150).

II. Social Forms and Social Life.

1. Introductory Remarks.

The Group Character and the Social Order.

A social relationship may be of a transitory nature, as when two men meet for a moment and then part again. But it is evident that a more durable social relationship can only be established through a mutual adjustment of the individual characters that constitute the group. They have to adjust their attitudes no less than their actual behaviour, so as to give rise to a more consistent purposive social behaviour of the individual members. And through this process of mutual adjustment of its individual characters the group develops certain patterns of attitudes and behaviour which it tends to impose upon its members through some degree of social pressure. Thus, every society, every community, every class or group, has a set of codes and norms and patterns, not only of actions, of the actual overt forms of social interrelations. There is in every group a set of socially prescribed attitudes or general norms of behaviour and conduct, and whether the individual likes it or not, whether he is conscious of the fact or not, this set of norms in a decisive way influences his own general and specific attitudes and, thereby, the whole of his behaviour in the widest sense of the word, his overt actions and conscious ideas as well as his unconscious motivations and even his emotional reactions, in other words, his entire individual character.

This set of norms of conduct, of socially prescribed attitudes, represents what we may call the group character of the social unit in question. This notion is not merely an abstraction. It cannot be explained as just the "sum total" of the individual characters of the group, nor as an "average" of these individual characters. The group character is that character which the group tends to impose upon its members, so that it is more or less general or universal within the group. But in itself it is not merely a type but a norm, and as such it possesses both the qualities which, according to Durkheim, are essential for a "social fact": it is something extérieur a l'individu, and it is doué d'un pouvoir de coercition en vertu duquel il s'impose a lui (1938, p. 8 and chap. I passim).[1]

Thus the group character, by virtue of its coercive power and its decisive influence upon the individual characters of the group, forms the basis of that harmony and conformity of the general attitudes and ways of behaviour of the different members of the group, which is constituent of a more permanent social order even in human society, the most individualistic of all societies. The group character, as MacIver puts it when talking about the "mores", is "an omnipresent influence towards conformity, forever molding and forever restraining the tendencies of every individual" (p. 17). And just as the behaviour of the individual is always a concrete realization of his character, so the patterns of behaviour valid in each group, the customs and usages, the socially acknowledged thoughts and opinions, the structure and organization of the group, are just the expression, in some concrete, specific way, of the group character. The group character is that superior principle according to which the social order of every community or group is formed. Thereby it also forms the basis of a certain harmony between the different patterns of behaviour valid in each group. In so far the group character really corresponds to what Comte called le principe du consensus universel de l'organisme social, the principle of a nature-conditioned harmony, or solidarité, of the single elements in a social order (1907/08, vol. 4, p. 170 sq.). Whatever are the forms of social life that develop in a community or group, as they are all the concrete expressions of the group character, they will all be more or less in harmony with each other. This also holds true of the social forms that are instituted through a conscious decision of some or all members of the group. So strong and decisive is the influence of the group character, that any such institutional form of social life, if it is to live, must be in accordance with the same group character.[1]

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[1] The term "group character" ("G-Karakter") has been used by Geiger in much the same sense as here. He defines the G-Karakter of a group as det Kompleks af Væsenstræk, hvori Gruppens Medlemmer gensidig bekræfter hverandre (1939, p. 101 sq.). However, in our view, the existence of a group character is not, as seems to be Geiger's opinion, conditioned by the members' conscious experience of their mutual likeness in contrast to the members of another group or other groups. Every group of individuals who live together in a mutually adjusted social behaviour, has a more or less distinct group character, whether its members are conscious of the fact or not. — Cp. also MacIver on "mores and folkways" (1937, p. 16 sq.).

It is very convenient, therefore, to start a description of a given community with a survey of the most important traits of its group character. This will, in some way, give us a deeper understanding of many patterns of behaviour and other traits of the social order prevailing in that community. It is certainly true that knowledge of the most important patterns of behaviour valid in a community is a premiss for the understanding of its group character. Both individual and group characters can only be observed through the mirror of behaviour. But — to follow up the simile — behaviour is not a plane mirror. Unless we know the psychological background of a person's behaviour, or of a pattern of behaviour valid in a group, we run the risk of misinterpretations. In other words, when we wish to use behaviour as a mirror of character, we must know the ideas and conceptions that condition the "definition of situation", and which give the overt actions their form. For the nucleus of character is not the action itself, nor its actual form, but the conscious or unconscious motivation or attitude underlying the behaviour. This knowledge of the ideological premisses of behaviour is of particular necessity when we are trying to judge the behaviour of a person, or the order of a group, belonging to another cultural and social environment than our own.

2. Ideas and General Attitudes.

Traits of the Group Character of the Tristan Islanders.

With regard to their character, the Tristan islanders have been very differently judged by persons who just know them from a short visit to the island. Thus, they are partly described as "quite ordinary people", industrious and clever, knowing little, but happy and contented with their life, partly as a gang of lazy beggars, people without energy or initiative, a race with all signs of degeneration.

These judgments, of course, are without any real value. But they are interesting because they show how a misconception of a person's behaviour can influence the judgment of his character. For one reason why the Tristan islanders have been so differently judged is obviously a misconception of their behaviour due to lack of knowledge of their special conditions, and of the social and ideological background on which they must behave as they do. To take just one example: When the islanders board a passing ship from their canvas boats, producing from their trade bags all sorts of feather caps, mats, home-knit socks, moccasins, etc., which they offer in exchange for clothing, flour, rice, or whatever articles they need, it may well appear to a European as a sort of disguised or open begging. To the European mind the islanders' offer is not proportionate to their demand, because the things they offer are of no real value to us. But then we are judging from our own point of view, from our own idea of value, and from our own conception of a "fair trade". It would be unfair, however, to judge the character of the islanders on this base, thus giving them the stamp of "beggars". As a matter of fact, very few, if any, of the islanders are conscious of the fact that their own products are of very little value to Europeans. Neither have they any idea of our valuation of the things they wish to barter from us, such as flour, sugar, clothing, etc. They see our abundance in these things compared with their own scantiness, and make their estimations accordingly. Thus, from the islanders' point of view, their conduct on board passing ships must be characterized as an honest and fair trade, which is very well compatible with their dignified attitude towards foreigners which we shall presently learn to know.

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[1] On the "group character" as the basis of social order see Munch (1945).

In the community of Tristan da Cunha the group character is very strong, which quite naturally evinces itself in a very strong conventionalism and conservatism as an outstanding character trait of the Tristan islanders. The whole of the material culture in Tristan da Cunha is greatly impressed by this conspicuous character trait. Thus the islanders rigidly adhere to many forms of the European culture which were introduced in the course of last century and refuse to take advantage of any new forms that might be introduced, though, in many cases, they would imply a considerable and obvious facilitation of their work, and remove many difficulties. Most conspicuous is this conservatism in the islanders' way of dressing. They get nearly all their clothes from outside, and especially the women have great difficulties in procuring enough clothes. Nevertheless, they have to discard many things that they get because they refuse to accept any new style of dress. Also in other aspects of the material culture we are met with the same character trait. Agriculture, for instance, is extremely primitive, and this is only for some part due to lack of knowledge or to the want of necessary implements. The same applies to the cattle-breeding. As a rule, the islanders handle their canvas boats very carefully — the boats seem to be much of a pride with them. But though they know that the strong sun and wind will corrode the precious canvas, which is often only covered with a single coat of paint, nobody takes it into his head to build a boat house to protect them. A nearly incredible manifestation of this conservative spirit occurred during our stay on the island: One day in March a dead whale drove ashore at East Beach, near Stony Beach. Now March is just the time when the islanders get oil for the winter from the penguins which they kill in great numbers, and this was done that year in the same way as in all other years, and only a couple of hundred yards from the place where the whale lay. As a matter of fact, the blubber of the whale, if extracted, would have procured oil of a much better quality sufficient for the whole settlement, and the stock of penguins, which has diminished perceptibly during the last fifty years owing to intense utilization, might have been spared that year. But, in spite of our efforts to make them utilize this wealth, the whale remained lying on the beach, and nobody made any attempt to take charge of the oil, though the blubber was inspected and found to be very rich. No wonder that the islanders have got the reputation of lacking initiative.

More than one missionary to Tristan da Cunha has learned to know this conservatism of the islanders as a solid wall against any new enterprise. It took seventy years and the constant efforts of four missionaries to induce the islanders to build a permanent church. We have also heard of the fish-drying business that was started in 1908, but had to be abandoned, partly because the islanders did not like the new kind of work. Even obvious improvements meet with the same opposition. The islanders apparently do not feel impelled to improve their own standard of living in any way.

Also in other aspects of their social life we meet the same conservatism and conventionalism. All attitudes and ideas of the Tristan islanders are more or less fixed and firm, and in much of their conduct and behaviour they are guided by rather strong prejudices.

This, especially, is true of the islanders' attitude towards the outer world. — Their outlook, of course, is very limited on account of their strong isolation, and they have the most preposterous ideas about "the outside world" — if they have any idea about it at all. It is true that the migration period with a comparatively close contact with the outer world is not too far distant, and some of the islanders have been away from Tristan for several years and have received first-hand impressions of the civilized world. There are even still living two immigrants in Tristan da Cunha, who arrived as grown-up people. But, apart from these few persons and one or two more of the older generation, there is very little knowledge of the world outside Tristan. Neither does there seem to be much real interest on the part of the younger generations to learn anything about other countries. I was never asked about things or conditions in my own country, and when I tried to tell them a few things from Europe, or to correct some of their misconceptions, they listened very politely to me, but without any sign of real interest. To most of them "the outside world" is something exceedingly alien to their own world, far beyond their reach and interests, a world where people have to fight for their bread, where money rule, and where there is no individual freedom.

Otherwise their attitude towards foreigners is distinguished by a curious mixture of deference and a confident self-respect. They have a strong sense of their own cultural inferiority as contrasted with the outer world. They feel that they cannot think of taking up competition with other people, and this is obviously one of the main reasons why they have always refused to leave Tristan da Cunha and settle down on the South-African main-land, though they have been repeatedly urged to do so. They have also a feeling of being looked down upon by Europeans because they are "black and poor", a feeling which — to some degree — may be derived from the fact that the islanders partly live on the benevolence of Europeans, though, with regard to the consciousness of race, it has been readily supported — if not directly induced — by the English missionaries. A Tristan islander will always address a foreigner with a humble "Sir", whether he be an admiral or a coal-trimmer, and though we made very good friends with some of the people, they never dropped this "Sir", even in free and playful speech. When I asked one of them to do so, the answer was: "No, Sir, we's only low and poor people."

On the other hand, the Tristan islanders seem to have a strong consciousness of their own worth as human beings, also in relation to foreigners. In all their relation towards representatives of the outer world they show a great self-respect that is easily wounded.

There are a few toadies, it is true, found mostly among the poorer people. These persons are submissive and subservient towards foreigners, seeking to rouse their compassion, and they do not even recoil from direct begging. The missionary, especially, is the object of much servility, obviously because he has the key to the storehouse where all the supplies collected and sent down by the S. P. G. are stored, and from which he is able to distribute extra gifts to those who submit to his régime. Actually, these flunkeys for the missionary are also found among the more well-to-do people who cannot otherwise be classified with the toadies. As we shall see, they form an important background for the missionary's power in the community.

However, these submissive persons are exceptions to the rule. The majority of the Tristan islanders are people of a prominent self-respect and a strong sense of honour which evinces itself in various ways. At least as far as our experience goes, their attitude towards foreigners is distinguished by a confident dignity which is almost imposing. They are always very polite to foreigners, but there is no servility in their attitude towards them. The slightest suggestion on the part of the visitor of a commanding or haughty tone, such as the white man too often adopts towards "coloured" people, would be certain to make them feel hurt. Personal freedom and independence are highly appreciated by them, and they have a strong dislike, therefore, of selling their working power or their service for pay in any form. Mutual gifts and voluntary services play an important part in their social life, also in their intercourse with the foreigners, with whom they get into a more personal and permanent relationship. Even we were overloaded with gifts on all occasions. On Christmas day we had a constant stream at our door of cheerful givers, and anyone who had a birthday, young or old, would come to our house, always bringing a gift of some kind. Anyone of us visiting a house for the first time, never returned without a gift. But — as a rule — they did not expect a reward, at least they did not show that they did, though, of course, a return gift — presented not as a payment, but just as a gift — was received with thanks. Any kind of direct payment for the favours they made us or for the gifts they brought us, was refused and would have been an offence — except when a bargain was expressly agreed upon beforehand.

This dignified attitude towards foreigners forbade them to show any gaping curiosity around our property. The first week after our arrival we were occupied in erecting a house which we had brought with us from Norway. But, though very few of the islanders had ever seen a house like this — only of wood —, and though we were working only a couple of hundred yards from the settlement and close to a track that had a constant traffic of islanders to and from Little Beach where they had their boats, we had no curious gazers hanging around. Neither did the islanders show any sign of being the least impressed by our motors, our electric light, our wireless station, or any of our instruments, though such things had never been seen in Tristan before.

Of course, the Tristan islanders know conditions in their own island better than any foreigner, and here they are superior both on land and sea to any European with all his knowledge and technical facilities. And the Tristan islanders know quite well that they are. In their own domain, therefore, they feel confident and assured towards any foreign visitor.

This feeling of superiority in their own domain evinces itself in the first place by an almost paternal care of and helpfulness to any foreign visitor. As regards their behaviour towards the members of the Norwegian expedition, they obviously regarded us as their guests (though they knew nothing of our arrival till the day we came on shore), and they behaved towards us in every respect as good hosts. They showed a marked sense of responsibility towards us and our property, and their eagerness to serve us in every conceivable manner knew no bounds. When we asked them a favour, there was not a thing they would not do for us. "We's only too pleased, Sir", was their constant answer, and we had good reason to believe that this was not a bare phrase.

We only pass this road once;
If I can do anything for you,
let me do it now,
For I will never see you again.

This saying was frequently quoted by our excellent Tristan cook Alice, and better than many words it characterizes the islanders' attitude towards foreigners. These kindly people obviously took a pride in giving their guests the best possible treatment. Thereby they also kept up a good tradition from the days of the sailing vessels. As we have heard, in those days it frequently happened that the Tristan islanders had to act as hosts for shipwrecked crews, who not seldom spent several months as their involuntary guests before a chance appeared to get away, and many a report has been given of the self-sacrificing hospitality of the Tristan islanders with which they supported their guests from their own scanty stores without demanding repayment of any kind. In this respect they showed, and still show, a distinct group sentiment, or group pride, which finds expression in the following letter of introduction that the writer received from an emigrant islander in Cape Town. The letter is addressed to Frances Repetto, the "chief woman", in fact the most influential person in Tristan for the time being:

"Dear Frances Repetto

I take this liberty of addressing you, and hope you will pardon me for doing so. The bearer is one of the Norwegian Scientific Expedition to Tristan, and is anxious to get in touch with the people there. Being strangers I trust you will assist and do everything in your power to make their stay as pleasant as possible. By doing so, you will keep up the good reputation of our dear late grandfather Green, whose good deeds, and kind actions to shipwreck crews regardless of colour, nationality, or creeds, are known through out the wide world. I am sure you will show the same kind spirit, — — —"

It is also characteristic of the islanders' behaviour towards foreign visitors, and of their sense of responsibility towards their "guests", that during "hungry times" they always see that the missionary gets all the best they can provide, supply him with potatoes and even meat, and always save their eggs, milk, and butter for him, whereas they often live on a very short diet of potatoes themselves. They seem to think that they can better stand a little starvation than the missionary can, for he is not "used to it".

A strong individual self-respect coupled with a considerate helpfulness is also the leading principle in the islanders' own social life.

In accordance with the general strength of the group character, the requirements of a correct and dignified conduct are very strong in Tristan da Cunha, not only before foreigners, but also in the islanders' mutual convivialities. The islanders, therefore, attach much importance to dignity in every situation. That is probably the main reason why alcohol is never used on the island, and why the islanders generally even refuse to take a drink when occasionally offered one on board a ship, though most of the men have once or twice tasted it. From utterances by islanders regarding this question it is obvious that hey shun alcohol because they do not want to loose control of their conduct.

Both in front of foreigners and in their own social life they lay much stress upon outer appearances. Most of them are careful about their looks. Their cleanliness is astonishing when considering their primitive life and the scantiness of soap, and pretty clothes are of great importance to them, especially, of course, to the women, but also to the men. On Sundays and other occasions they are always well dressed, the men also well-shaved, and it is the dream of every young girl or woman to get a new dress for Christmas. Also the houses are, as a rule, kept neat and clean. In most of them the floors are scrubbed every day, and before Christmas, Easter, and other important occasions, such as the arrival of "The Big Mail", they are washed and scrubbed all over. Most of the islanders take much pride in their houses and spare no pains to furnish them well with wainscots, shelves, and cupboards, all nicely painted. And though many of the houses are but scantily furnished for want of wood, shelves and window-posts are always decorated with paper nicely cut in neat patterns, and in the summer fresh flours are always found on the table or on the mantelpiece.

The Tristan islanders very much appreciate their own simple life, which gives them a great personal freedom and independence as individuals. Also in relation to each other an individual economic self-dependence is held in great estimation by them. To offer an associate one's services or the product of one's work for pay is, in certain circumstances, considered almost equal to begging. Mutual gifts and services have a still greater part in their own social life than in their relations with foreigners, but to "look for something" as a reward for a given service or gift is considered a great disgrace and not to be in accordance with the dignity of a free man. It is also significant of the islanders love of freedom and independence, that they have always refused to recognize any governmental control in their community.

Some of the poorer people form exceptions even to this rule. These work-shy individuals prefer begging to an honest piece of work, and would gladly sacrifice their self-respect and social prestige if they could thereby gain some advantage without too much compensation or return of service on their part. These persons are careless about the appearance both of themselves and their houses. Those were the only persons actually seen in rags, and their houses are poorly furnished. These poor wretches do not take the trouble to grow enough potatoes for themselves and their families, or to collect wood for fuel sufficient to have a stock when storm and rain prevent all outdoor work, but live more or less on the benevolence of others during the winter. What woodwork they may have collected and put up in their houses is frequently pulled down and sold in order to get food, or it is simply used as fuel.

These lazy people, of course, to some degree invalidate the general impression of a confident self-respect which we have described above. But they do not influence the group character, which is not an average of the individual characters of the group, but a norm. Deviations from the norm are here, as usual, repaid by a loss of prestige, and in this question the loss of prestige is great. The majority of the islanders dissociate themselves more or less from these people, and decline to be included with them.

The marked self-respect which we find among the Tristan islanders, however, is not allowed to manifest itself in a regardless self-display. The whole life attitude of the Tristan islanders is individualistic, but at the same time truly humanistic. As a matter of fact, respect for the individual, whether he be a foreigner or an associate person, and a corresponding repression and regulation of the instinctive want of individual self-assertion, are the most outstanding traits of the group character in Tristan da Cunha, and have rightly given the Tristan islanders the reputation of being one of the most peace-loving people on earth. Kindness and considerateness are intrinsic traits of their character, and the leading principles of all their conduct, not in respect of foreigners only, but also in relation to each other. They are always considerate and ready to help each other. Violent actions against an associate's person or acknowledged rights do not occur. A fight has never been seen in Tristan within the memory of the oldest inhabitants, and ill-natured quarrels are rare. A personal enmity — when it occurs at all — never seems to go beyond a stage where the two parts do not speak to each other, and even this mild form of hostility seems to cost so much psychic effort that it can never be kept up for long.

How important this trait is for the group character of the Tristan community, is seen from the fact that it is guarded by strict, social sanctions in the form of a severe loss of prestige for the one who breaks this code of behaviour. Thus, if a man has once shown an inclination to hot-tempered quarrelling and fighting, no matter whether he has been injured or not, he has thereby involved himself in a loss of prestige which he will probably never be able to regain. An episode of that kind will be remembered for many years and the peace-breaker has for ever been branded as "quick-tempered". To lose one's temper is even a thing that an orderly man never does. On the other hand, a man who is able to turn off a dispute by a good joke, will receive appreciation and respect from everyone.

Generally speaking the Tristan islanders are of a sensitive disposition, and easily and openly give vent to feelings that do not offend against their approved social codes. They unrestainedly give way to sorrow as well as joy. On the least opposition from one of their associates they show taciturnity and other signs of annoyance, and on some points they are easily hurt. In sorrow they rather quickly give a free flow to their tears, and frequently do not even make any attempt to conceal them. This, of course, applies especially to the women. But also the men were on one occasion seen weeping openly. At our departure all the inhabitants, men and women, came to bid us farewell with a handshake and a kiss, while the tears were streaming from their eyes.

They are just as open and unimpeded in their joy. They easily break into hearty laughter, and they often give expression to their joy by singing and dancing. On the whole, the Tristan islanders show a cheerful disposition. Indeed, in this respect they are like big children. They have an infectious, good temper, joke and laugh much and make merry at everything and everybody. They have a good sense of humour, and very much appreciate playful chaffing, an art which they like to practise whenever there is a chance, and wherein they have developed a remarkable dexterity. They readily turn to the humorous aspect of things and situations, and are very fond of witty sallies and joking. However, they do not forget their dignified attitude, and do not like to let themselves go in the presence of foreigners. That is probably one of the reasons why they have gained the reputation of being extremely shy. Happily, we soon got so familiar with them that they hardly took any notice of our presence, and we had more than one opportunity of seeing them joke and play in their own way. Even in this respect the women are more open and unembarrassed than the men, but also the men were occasionally seen playing like boys, with much noise and laughter.

This playful attitude is even introduced into much of their work, especially, of course, when they are working in gangs. The islanders, as mentioned previously, take much pride in their boats and vie with one another in having the fastest boat and the best crew. Whenever two or more boats are together on an excursion to the other side of the island, or out to a ship, there are hard rowing races or sailing matches. A new boat was finished while we were on the island, and one of the owners, a lazy fellow and the poorest man on the island, was so excited to see "his" boat win its first race that he danced and shouted and tore his only cap to pieces though on that occasion he was not in the boat himself. He was 61 years old. Even such an everyday occurrence as fishing is often taken as a sporting event. When a boat is out fishing, there is always a competition between the members of the crew which of them can catch most. And it should be noted that this competition is not motived by any economic advantage for the winner, for afterwards the draught is equally divided among the crew.

It is a selfevident thing that these cheerful people are fond of feasting, and they never let an occasion pass without having a public dance for "all the island" in the "school-house", which was built partly for that purpose. In spite of their individualistic life attitude they are sociable and gregarious, and like to be together in festivity as well as in their work. Especially when they go "round the beaches", *i. e.* to one of the places on the other side of the island, they like to go in large parties, two or three long boats in company, and these excursions are always partly taken as holiday trips. Sometimes they are extended over three or four days or even a week or two whilst waiting for a fair wind to return home. The islanders very much enjoy this camping life, half in work and half in play, with flirting and chaffing and playful fights between the men, sleeping in caves or primitive huts with outdoor cooking, and with songs around a blazing fire at night.

It is a matter of course that life on this storm-swept island in the middle of a raging ocean cannot be a bed of rose-leaves. The people have to endure hardships and privations of many kinds, and even starvation. But they do it with a cheerful smile. With a few exceptions — even the same lazy and dejected persons — we never heard any of them complain of their hard lot. In 1938, the year of our visit to the island, the potato crop was very poor, and it was obvious that many families would be faced with starvation during the coming winter. But there were no lamentations on that account. One islander informed me that for his family of 8 persons, 200 bushels of potatoes were not too much for the winter. "But this year," he added with a smile, "I'll have about 80". They have a saying in Tristan which was their constant reply when we expressed compassion with them on account of their hard life: "We don't mind, we's used to it." These people are even used to a little starvation. When they make excursions up the hill or to the other side of the island, they always start early, sometimes at 2 or 3 o'clock in the morning, and never eat anything before they leave the house. Frequently they go on till noon, or even till the evening, with hard walks and trying work, without tasting any food, and this does not seem to have the least effect on their working power or their good humour.

Contentment, on the whole, is eminently a virtue of necessity in Tristan da Cunha. As a matter of fact, with these people there seems to have taken place a psysiological as well as a psychological adjustment to an impoverished environment. At certain times, especially during the winter, they have to do with very little food, and some of the poorer families sometimes have to go without any food for days. Altogether, the amount of food they get seems to be far below what is considered a minimum in more civilized countries. Yet, only some of the children of the poorer families showed distinct signs of undernourishment.[1]

Some of the food-stuffs of the outer world are not unknown to the islanders, and these "luxuries" are highly valued by them. "Soft bread", or flour to make it from, butter or margarine, sugar, tea, or coffee, are precious things. But nowadays they are seldom available in any quantities, and they do not play any considerable part in the daily life of the islanders. The daily fare in Tristan da Cunha mostly consists of boiled fish and potatoes three times a day. In particular the islanders are very fond of tea, but when anyone has been so lucky to acquire a small quantity of it, it is often saved for a long time for a special occasion, for instance Christmas, or a birthday. On the 5th of February, 1938, an islander and his wife gave a dance for the whole island on the occasion of their daughter's first birthday. During the dance a remarkably good tea was served, and afterwards the wife told me, with some pride, that the tea had been specially saved for the occasion; it had come from the *Cap Pilar,* a ship that touched at the island on the 31st of January — the previous year!

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[1] See Henriksen and Oeding (1940, p. 15 sq., especially p. 31 sq.). On the quantity and nourishing value of the usual Tristan diet, ibid., p. 100—121.

But when there is an occasion, there is usually no sparing. A certain periodical extravagance seems to be characteristic of all people who live from hand to mouth the greater part of the year, but with seasonal plenty, and this is no less true of the Tristan islanders than of other people. Though they are contented and frugal, any change in the monotonous diet of fish and potatoes, of course, is welcome, and especially during the egg season in September and October, and during the apple season in March, they very much enjoy their transitory abundance and try to make the best out of it — in two or three weeks it is gone. Meat is a luxury that only few can afford to allow themselves once in a while, but when there is an occasion it is an indispensability. And there are many "occasions". Comparatively luxurious parties are given on special birthdays, or when some special work has been finished, and whenever a relatively large party goes to Stony Beach for apples or the like, if one of its members owns cattle there, they frequently kill a "thing" and live on nothing but beef for several days. At Christmas-time they eat mutton or beef every day for a week or two, an enormous extravagance when considering their meagre diet all the rest of the year. On the whole, something extra in the food way plays a prominent part in their feasts, and that is why they always save what small "luxuries" they can secure for an occasion.

This reckless attitude also explains the wasteful way in which the islanders utilize the bird life and other economic resources of the islands. In this respect they do not look far ahead, but enjoy their abundance as long as it lasts. Though they see with their own eyes that the stock of wild life is diminishing, they take no precautions to protect it. Frequently they catch and gather much more than they can manage to eat before it is spoilt, and considerable quantities of meat, fish, birds, and eggs are every summer thrown away by the islanders. But the islanders do not care about that as long as it is summer and "fat times".

Feelings, sentiments, or dispositions not in accordance with the prescribed codes very seldom come into expression. It is a very rare occurrence that a Tristan islander loses his temper or the control of his behaviour. During our nearly four months' stay on the island with constant close contact with the islanders, I only twice witnessed a transient, impetuous outbreak of the temperament by persons who were fully conscious of it, in both cases men. And in both cases the outbreak created a much depressed mood among the bystanders. Two men, on the other hand, were reported to be apt to beat their wives, but, on the whole, breaches of the group character are extremely rare in Tristan da Cunha, an evidence of its firmness and strength.

However, in more recent years there have occurred a form of unconscious, or only half conscious, outbreaks of repressed temperamental dispositions. These outbreaks have occurred especially among the women, and they consist of more or less violent accesses of hysteria, with convulsions of different kinds. These fits appeared first in a young girl of 21 during a dance in August 1937. Then they spread rapidly to the whole community, and, in the course of September and October the same year, altogether 16 women of different ages and a small boy of 10 were affected. The fits seemed to occur by preference in large assemblies, and it was obvious that the power of example played an important part. In all cases the fits were more or less true copies of one another. Many of the women had religious visions during the fits.

During our stay on the island the "epidemic" seemed to die out gradually, but the next year, according to information given in a letter from an islander to Dr. Henriksen, there was a fresh outbreak with new victims, and this time even some young boys had fits of it.[1]

Undoubtedly, in this "epidemic" we must see an explosive outbreak of mental powers which have been latent in the community for a long period of time, and it seems quite natural, as also suggested by Henriksen and Oeding, to put the phenomenon in connection with the strict social codes of this small and isolated community. Possibly the fits may be regarded as a kind of revolution against the pressure of the group character with its strict codes of attitude and behaviour, or in other words, as a manifestation of concealed and repressed emotions and dispositions which could not be brought into expression in a normal way because they were not in accordance with the group character. This is the more conceivable because these fits, at least in the beginning of the "epidemic", were not involved with any loss of prestige, but, on the contrary, were apt to arouse the community's interest and curiosity around the victims.

The explanation given by a native girl, who had herself had the fits, may be of interest in this connection. She explained her own case as caused by a quarrel between her sweetheart and her brother, which had caused the former to stop coming to her father's house in the evenings. Two cases were thought to be caused by jealousy, one by domestic quarrels between husband and wife, and for several cases she gave the more vague explanation that the fits were caused, quite generally, by a "strong temper".[1] This girl was a very intelligent girl, and she knew what she was talking about from her own experience. Moreover, there is good reason to take her explanation into account because it seems to suit well with the mental structure of this community, especially with the strength and quality of the group character. In the case first mentioned the quarrel between the fiancé and the brother had obviously made a deep impression upon the girl, and it may well be assumed that it had aroused a subconscious hatred towards the brother and a desire for revenge. Otherwise, this case might also be explained as the result of jealousy, as the girl suspected another woman of trying to part her from her sweetheart. A subconscious wish for revenge might also have been present in the case that was thought to be the result of domestic quarrels.

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[1] For further details concerning these nervous disorders the reader is referred to the medical report by Henriksen and Oeding (1940, p. 67 sq.).

As will be seen, according to these explanations, the nervous fits were often thought to be caused by such emotions or dispositions which were exactly amongst the most strongly repressed through the influence of the group character, and it seems quite natural to understand them simply as an indirect manifestation of such repressed emotions. This also accords with other explanations given in each case by the victims themselves.

Of course, the explanations given by the islanders are greatly simplified. What they give as the cause of the fits in each case may often be just the relieving cause, while the real cause is of a more complex kind. However, these explanations tell something about the kind of mental difficulties with which the islanders are faced, and thereby show in what direction we have to seek the mental background of the "epidemic".[2]

Whatever the cause, or complex of causes, may be, the phenomenon is the more interesting because it is not an isolated phenomenon confined to the community of Tristan da Cunha alone. In the eighties of last century a similar epidemic of mental disturbances occurred in the community of Pitcairn Island. There were 11 or 12 victims among the younger people. They had hallucinations "of a terrifying but unspecified nature", and they temporarily lost their memory and their power of speech (Shapiro, 1936, p. 133 sq.). Among the Eskimos of Angmagssalik, on the east coast of Greenland, hysterical fits very similar to those on Tristan seem to be quite common, especially in the spring. Apparently quite normal and well balanced young girls or women may suddenly get violent attacks of rage and run out of the house almost naked, shouting and crying and railing against everybody in the house and the neighbourhood. Similar attacks of rage also occur among the Andaman islanders. There it is "by no means an uncommon occurrence" that men and women relieve their feelings by, apparently in a fit of derangement, destroying anything that may come withing their reach. Sometimes the women may take a burning log and hit it furiously against the ground, all the while scolding and railing in much the same way as the Angmagssalik women (Man, 1883, p. 111).

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[1] Further details are given in the medical report.

[2] It should be mentioned that sexual difficulties and an unsatisfactory sexual life seem to have been a co-operating cause in some cases. As we shall see, this is also a difficult question in this narrow and transparent community.

Though the manifestations of these mental disturbances, especially in the case of Pitcairn, are quite different from those in Tristan, we may assume with some certainty that in all these cases we are faced with different manifestations of the same sociological and psychological phenomenon, namely with more or less violent outbreaks of socially repressed emotions. It is an important fact and worth noting that in all the cases mentioned the victims are considered as unaccountable for their words and actions for the time being. In Pitcairn Island as well as in the Andaman Islands the fits are regarded as the result of a "visitation" or a "possession", which gives the whole thing, inclusive of the victim, a certain sacrosanct quality. It should also be noted that in all these cases we are concerned with comparatively small and secluded communities with very strong group characters, wherein kindness and considerateness in the outer appearances are predominant traits.

3. Material Culture.

Outside Supplies.

In spite of the increasing isolation of the Tristan community in later years, the connections between Tristan and the outer world are not absolutely broken. For the material culture of the community it is of great importance that there are still considerable imports of European products. These imports flow mainly from three different sources. Firstly, there is the direct barter with ships that from time to time touch at the island. This barter is still of some importance for the supplies, especially of men's clothing, but also of victuals and, to some degree, of luxuries such as tobacco, biscuits, etc. As the women never go on board a ship unless they are specially invited, this trade is carried on exclusively by the men, and the first thing they ask for when they offer their tossel mats or model canvas boats for sale is a piece of cloth. Actually, clothes are the articles that are most easily obtained as repayment for the small curiosities which the islanders can offer for sale; for these articles are no longer bought by the ship's captain or steward on behalf of the ship, but privately by individual sailors who — as money is useless to the islanders — have nothing else to pay with than some spare piece of cloth, or, may be, some tobacco or a few biscuits or dry cakes. Thus, the direct barter with ships still remains, perhaps, the main source of the supply for men's clothing. A bargain on a larger scale, closed by a spokesman on behalf of the whole island with the ship as one body, which was common in the old days, is now very rare. But still the islanders can, once in a while, procure supplies in this way, usually victuals such as flour, sugar, rice, or salt meat.

Another way of procuring supplies from the outer world is by means of what we may call "indirect barter", which consists of a mutual exchange of gifts by mail between individual islanders and private persons in England. This "trade" is of a more recent date. When the decline in the traffic round Tristan da Cunha and the resulting isolation of the island became a serious danger to the regular supplies of the islanders, the Society for the Propagation of the Gospel took up a manifold work to support them with gratuitous supplies from England. Part of this work has been to put interested people in England in direct contact with individual islanders, to whom they can send their private gifts. These people are then informed by the Society when a mail is about to leave for Tristan. In this way a not inconsiderable correspondence has been established between individual persons in England and in Tristan da Cunha, and an equally considerable quantity of various articles is imported to Tristan on these lines. Return gifts are sent from Tristan, which again encourage the donator to new gifts, thus establishing a permanent system of mutual exchange of gifts. This system has this advantage — among others — for the islanders that they can write (and if they cannot write, they let others write for them) and tell exactly what they want. Actually, this is the only form in which it is possible to "order" commodities from the outer world. And though it may take a year or more before the "order" can be effected the system is still very useful to the islanders, and many avail themselves of it. The system is the more popular among them because the reception of these gifts does not offend against their self-respect. It is true, the system is based on benevolence on the part of the English persons concerned. But it is not felt so much as such by the islanders because here they feel that they can do something in return in the form of return gifts as they are faced by individual givers with whom, moreover, they often get on friendly terms. Among the islanders this system is chiefly kept up by the women,[1] and the things that are imported to Tristan by means of this system are, consequently, mostly women's things, such as women's clothing, household utensils, materials and utensils for sewing and knitting. In the second rank come clothes for the men and lighter implements for joinery.

But to-day by far the greatest quantity of supplies to Tristan from the outer world is effected through the more impersonal and institutional benevolence rendered by the Society for the Propagation of the Gospel, and by the two special organizations, the Tristan da Cunha Fund in London, and the Tristan da Cunha Welfare Committee in Cape Town. These institutions collect gifts and supplies of all descriptions for the islanders from firms and individual persons in England and South Africa, and the British Government has undertaken the provision for shipment to the island, which is usually effected by a man-of-war, either from the Naval Station at Simonstown or direct from England. Since 1926, until 1939, when the service was probably suspended on account of the war, there has been a yearly mail to the island bringing large quantities of gratuitous supplies to the islanders. This is "the Big Mail", which is every year looked forward to by the islanders with very high expectations. The following is a list of stores shipped in February 1938 by H. M. S. *Milford* on behalf of the Society for the Propagation of the Gospel and of the Tristan da Cunha Fund, and will give a picture both of the quantities and the manifold descriptions of the supplies sent to Tristan in this way:

6	barrels Flour
2	cases Oatmeal
1	case Baking Powder
3	cases Salt
1	case Cocoa and Chocolate
12	cases Sugar and Syrup
2	» Provisions
22	packages Provisions, Tea, etc.
2	chests Tea
18	cases Condensed Milk
1	case Lime Juice
4	cases Extract of Coffee
1	case Sweets
2	packages Tweed and Lining
44	bundles Clogs
8	cases Clothing, Groceries, Books, etc.
4	» Glass
5	packages Glass
13	» Soap, Glycerine
2	cases Safety Matches
100	packages Sundry Gifts
1	case Sundry Items
1	» Seeds
1	» contg. 3 caddies Pilot Brand Plug Tobacco
1	» Tobacco

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[1] This circumstance has obviously some connection with the fact that the women as an average are more clever at reading and writing than the men. But it is hard to decide whether the latter is the cause or the consequence of the former.

1 case Boot Polish
10 cases Paraffin Oil
1 case Oil Lamps
2 cases Candles
74 packages Lifeboat and Shore Tackle
6 cwt. Wood
4 pieces Oak for boat keels
1 bale Boat Canvas
2 cases Copper Boat Nails
1 case Putty
1 » Paint
3 bundles Wire
1 cask Stockholm Tar
1 case Fishing Lines and Hooks
3 packages Ironmongery
1 cask Sheep Dip
8 packages Tools
1 case Carbide
1 » Toys
1 » Hospital Stores
2 cases Communion Wine
1 case Wireless Receiver } [for the
1 » Accumulators } missionary].

Besides these more regular supplies there are the not inconsiderable gratuitous supplies offered by ships visiting the island. Amongst these the ships of two Norwegian whaling companies, Lars Christensen in Sandefjord, and Melsom & Melsom in Tønsberg, have played a prominent rôle for the support of the islanders. Actually, these two companies are the only shipping companies known as such to the islanders, who call them the "C-Company" and the "M-Company" respectively on account of their having a large C, and M respectively, in their company badges painted on the funnels of their ships. The floating factories of these companies often use the opportunity, when passing Tristan da Cunha on their way to and from the Antarctic, to oil their catchers in the lee of the island, and if contact with the population is possible, they never do so without dropping some barrels of flour or other victuals as a gift from the owners. Other ships, too, occassionally bring similar gifts.

All these supplies, of course, have a cultural as well as an economic significance for the island, and although they are small compared with the abundance of the days of the clippers and, for the greater part, dependent on the benevolence of the outer world — maybe an uncertain factor to rely upon in the long run — they are still there and help to maintain a genuine European culture in Tristan da Cunha.

Clothing.

The Tristan culture may be described as an oldfashioned and primitive form of European culture, and this, in many ways, applies especially to the islanders' way of dressing. In so far it may be said that their clothing is characteristic of their culture as a whole.

In the first place, it is both exclusively European in its origin and genuinely European in its present forms. This, of course, is a consequence, not only of the fact that the original settlers were Europeans

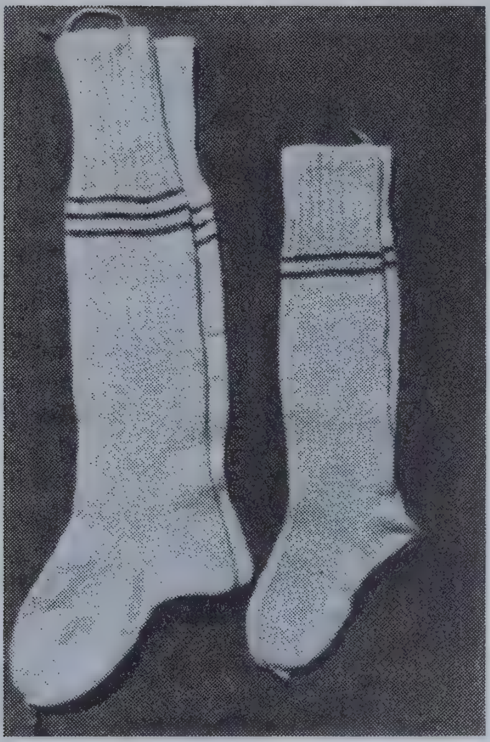

Fig. 14. Men's socks.

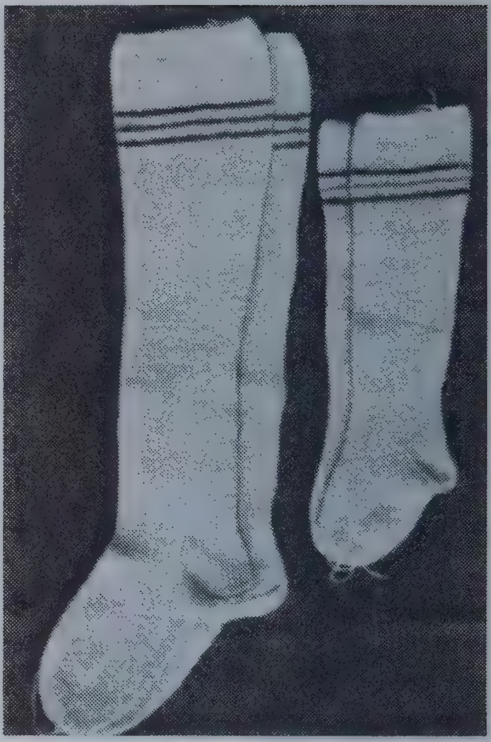

Fig. 15. Women's stockings.

or Semi-Europeans, but still more of the fact that nearly all clothes worn by the Tristan islanders are imported from England or other parts of the European culture area, for a great part in a ready-made form. In this respect the men have always been better off than the women. In the old days, the men had no difficulties in bying what clothes they needed from the sailors on board the many ships that visited the island. And probably most of the men's clothing is still procured in that way. The women doubtless used to get their clothes from St. Helena as long as a contact was kept up between the two islands by means of the American whalers. Now they are reduced to what they can procure through benevolent donators in England.

On the other hand, the clothing of the Tristan islanders is strongly conservative and highly conventional, and presents itself partly in forms which are long since out of fashion in the proper European culture area. And these forms are adhered to with a rigidity which is almost astonishing. This applies more to the women's dress than to the men's, the men being more flexible in this respect to accept as serviceable what may be had. And it applies more to the representative Sunday clothes than to the ordinary working dress. Clothes have everywhere not only a physical function as protection against climatic conditions, but they also play an important social rôle, and this is no less true in Tristan da Cunha than in other communities. Dress, in fact, is a very important matter of social prestige, and the islanders, men and women, put much

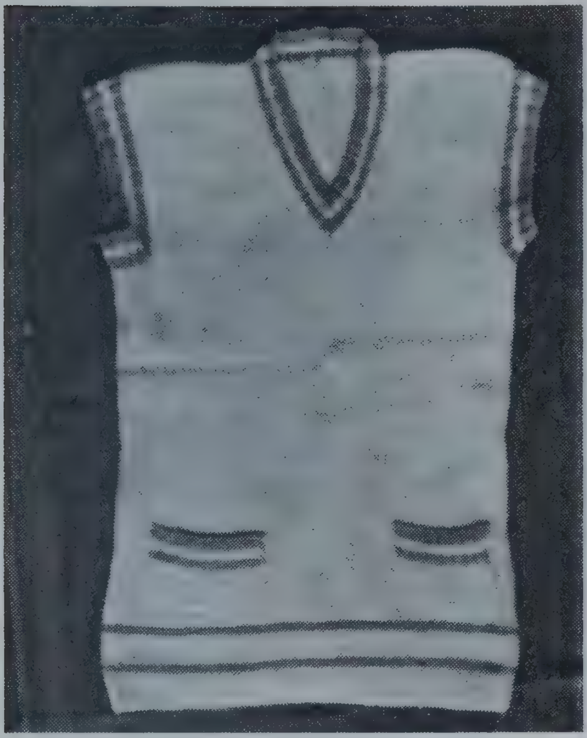

Fig. 16. Knitted pull-over.

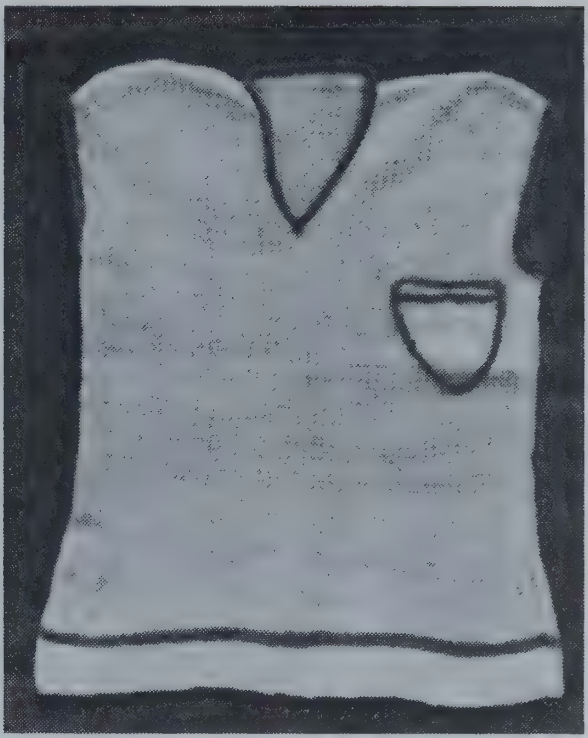

Fig. 17. Knitted pull-over.

of their pride in being well dressed and, above all, correctly dressed, especially on Sundays and other occasions. They like to put on their best clothes and let no opportunity of doing so pass. But they are very careful with their clothes and draw a sharp distinction between the ordinary everyday working clothes and "Sunday clothes", as well as between these and the "Christmas clothes" which are only used for Christmas and Easter. Considering the general cultural standard in Tristan da Cunha, and the great difficulties connected with anything that has to be imported, it is simply astonishing that so much stress is laid upon the outer appearance of the dress, and that so much pains are taken to procure things which, from a purely economic point of view, must be described as luxuries as they seem to presuppose a certain economic surplus. For one consequence of this conventionalism in the way of clothing is, that there must be put certain claims upon the things imported to the island. Not all the articles that may be procured through barter, or as presents from friends in Europe, are of equal use to the islanders. Many things which might otherwise be quite serviceable, if their style is not in accordance with the prescribed Tristan fashion, are reduced to working clothes or simply cut to pieces to serve other ends. One young woman had a pretty gown of grey flannel which might do at any English tea-party; but as it was out of fashion, it was considered ugly, and was only used as a working gown of the simplest design. The women, therefore, prefer to make their own

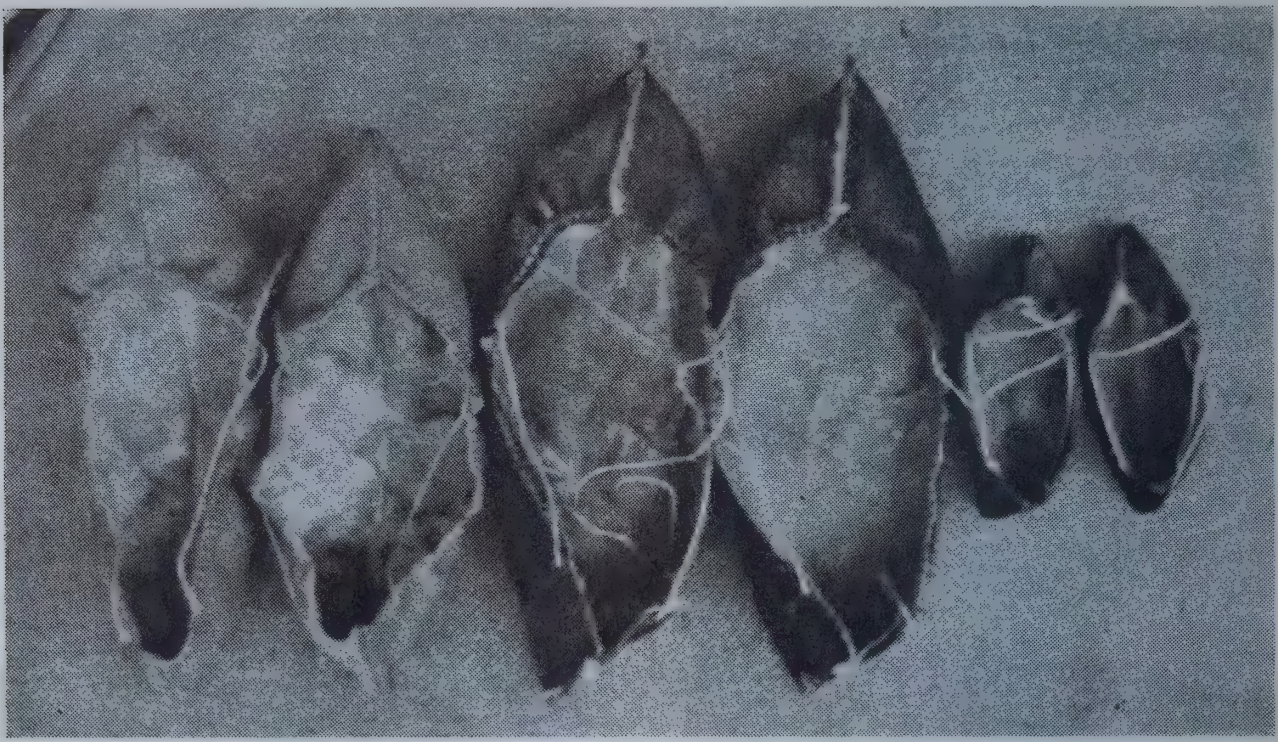

Fig. 18. Home-made moccasins (woman, man, child).

clothes, and a piece of print is the best thing the mail can bring to a woman. But they may also do up an old dress, provided it is made of the right material. The men, as mentioned, are more flexible in this question. For working clothes they may accept anything available, but even they make very definite demands for their Sunday dress.

The island's own production of clothes is very limited. The islanders get wool from their sheep, and they spin it themselves on primitive home-made spinning wheels. But weaving is unknown on the island. What can be made of the home-spun worsted, therefore, is reduced to knitting. In return, knitting is a very common and popular occupation among the women. In this way the islanders produce a great quantity of socks and stockings. With regard to these articles the island is not only self-supporting, but even produces a considerable surplus for "export". Also pull-overs are produced in comparatively large numbers, and also different kinds of children's garments. There is finally a small but insufficient production of different articles of underwear, such as men's drawers and bodices ("bodies") for the women. The wool has its natural colour, usually white or brownish-white as most of the sheep are of the usual white colour. There are also a few black sheep, and even some piebalds, but their wool is only used in underwear and simpler things. For visible articles of clothing, such as stockings and pull-overs, preferably the best white wool is selected. Finer things, such as children's stockings, are sometimes made of lamb's wool, which is whiter and softer

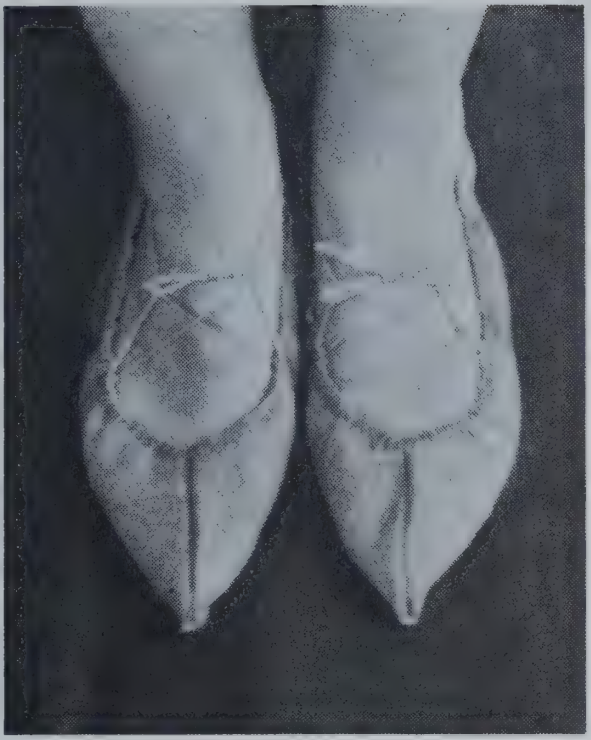

Fig. 19. How the moccasins are tied on.

than the ordinary wool. More rarely a white and a black thread are spun together and used in stockings, which will produce a mixed pattern, the so-called "pepper-and-salt". To break the monotony of the white, the articles are decorated with regular stripes and borders of imported coloured wool. For this use they prefer bright, clear colours, red, green, or blue, but otherwise may use anything available. The stockings have one to four such stripes just below the knee, usually in two, or even three, different colours, and these "marks" are made an all important matter: great stress is laid both on their colour and on their number, and I never saw a pair of stockings without at least one "mark". As a matter of fact, they would unravel any piece of coloured wool before they would make a pair of stockings without any "marks".[1]

Another peculiar feature of the Tristan clothing are the ox-hide moccasins, which are the usual everyday foot-wear of both men, women, and children. These are made of a rectangular piece of hide which is folded at the middle in the direction of its length, the hair-side out, and cut to the length of the foot. The toe end is rounded a little (see fig. 20), and both ends are sewn together with a piece of string. A string is made by twisting together two small bundles of Manila hemp — this is done by the fingers of one hand only and with a remarkable dexterity —, and the string is threaded through a series of holes near the upper edge of the moccasin from a point about one inch from the heel around the fore part to the same point on the other side. While still moist, the moccasin is shaped to the foot by drawing the string, the ends of which are again brought through one of the holes on each side, and tied in the way shown in fig. 19. Before sewing together, the hair is usually cut short by means of sheep-shears or ordinary scissors, the cattle in Tristan being rather long haired, probably on account of the rough climate.

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[1] A more detailed description of the way of knitting is given below.

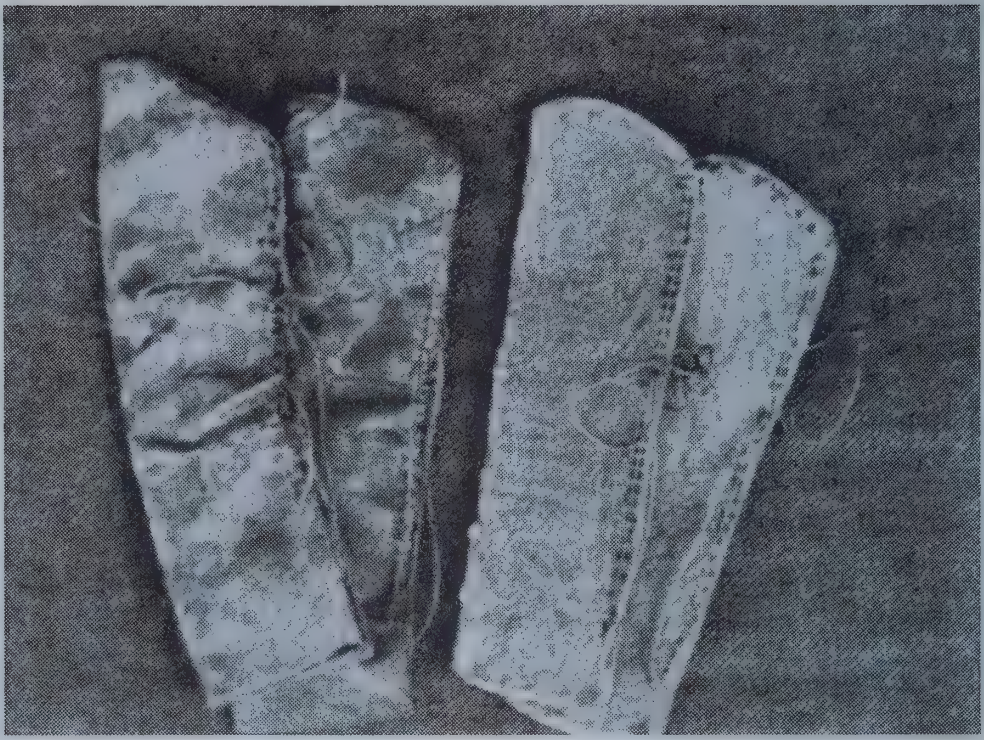

Fig. 20. Sheep-skin moccasins (undrawn).

This foot-wear, of course, is very light, and it is comfortable on the foot as long as it remains soft. But to retain its softness it must be kept moist. If the hide dries, the moccasins get hard and very uncomfortable to wear. In such case the islanders simply put their moccasins in water for a while and then put them on. This, however, does not matter so much as one should expect as the evaporation and the resulting refrigeration is very small on account of the moist air.

Quite naturally, this foot-wear is not very strong. It is reckoned that a pair of moccasins will last for only two or three months before they are worn out. Nevertheless, here too, great stress is laid upon quality. Especially the young girls, who usually get their moccasins from their sweethearts, would not accept any kind of moccasins as a suitable gift.

Firstly the colour must preferably be plain, without any shades or white spots. Black is preferred, and this is an absolute demand for "Christmas moccasins". But for ordinary moccasins red or reddish-brown will also do. Secondly the material must be selected from the thinnest part of the hide if the moccasins shall be considered of good quality. This is obviously not prescribed for economic reasons, as it reduces the durability of the foot-wear. It is only prescribed in view of the smooth look and the convenient wearing of the mocasins. But the most important criterion for the quality of a moccasin is the handwork. Great stress is laid upon the smooth cutting of the hair, so that no hacks are

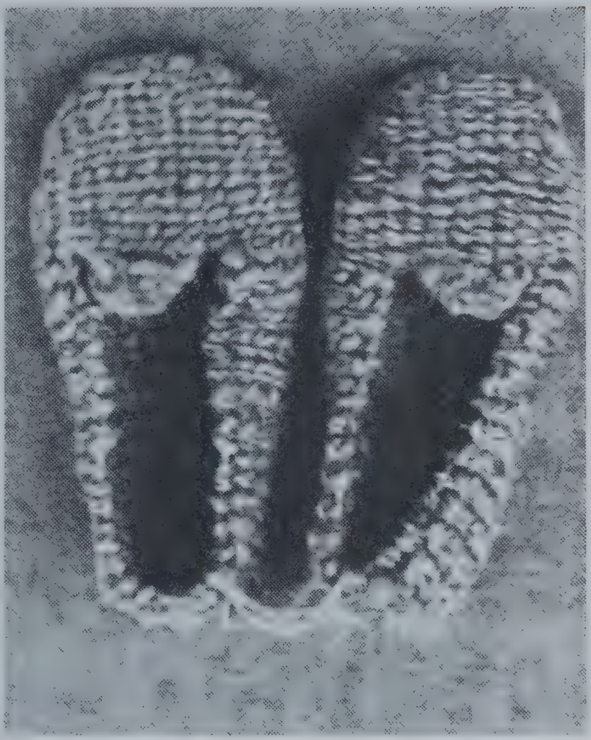
Fig. 21. Braided rope slippers.

visible, but especially upon the quality of the sewing. This is not so much the case for men's moccasins, which also in other respects are of a coarser quality than the moccasins worn by women and children. The men's moccasins are often rather roughly made, and are always only tacked together in the simplest possible manner with ordinary up-and-down stitches. With women's and children's moccasins, however, it is important that the seam should be smooth, and, therefore, a more careful method is used in making them. Actually they are folded and sewn together with the hair-side in, and then turned out. Instead of the ordinary up-and-down stitches they use here an overcast seam, with very close stitches which are drawn tight so that no part of the thread should be visible on the outside (see figs. 18 and 19).

The moccasins are usually made out of ox-hide. More seldom they are made of sheep-skin, and in this case they may be worn with the hair-side in or out. Even here the wool is cut short. These moccasins are not considered so good as the ox-hide moccasins as they absorb more moisture than the latter and are even less durable. We were presented with a great number of these sheep-skin moccasins, but I never saw any of the islanders use them.

The art of making moccasins seems to be very old in Tristan, possibly as old as the community itself. In any case, homemade moccasins are mentioned by Earle in 1824 (1832, p. 332, cp. Taylor, 1856, p. 84). At that time they were made of sea-elephant skin.

Slippers for in-door use are also produced by the islanders. These are sometimes made of Manila hemp. Rope, which is obtained on ships, is unstranded, and a single strand is braided in a certain manner round a piece of pasteboard which has the length of the foot. For one slipper there is required a strand about 15—20 m long, and this should preferably be of one single length to avoid knots. This art is also probably very old in Tristan, but to-day it is a dying art. There are only two or three men now who know how to braid slippers from hemp, and only one who can make them well, namely: Old Sam Swain, the oldest

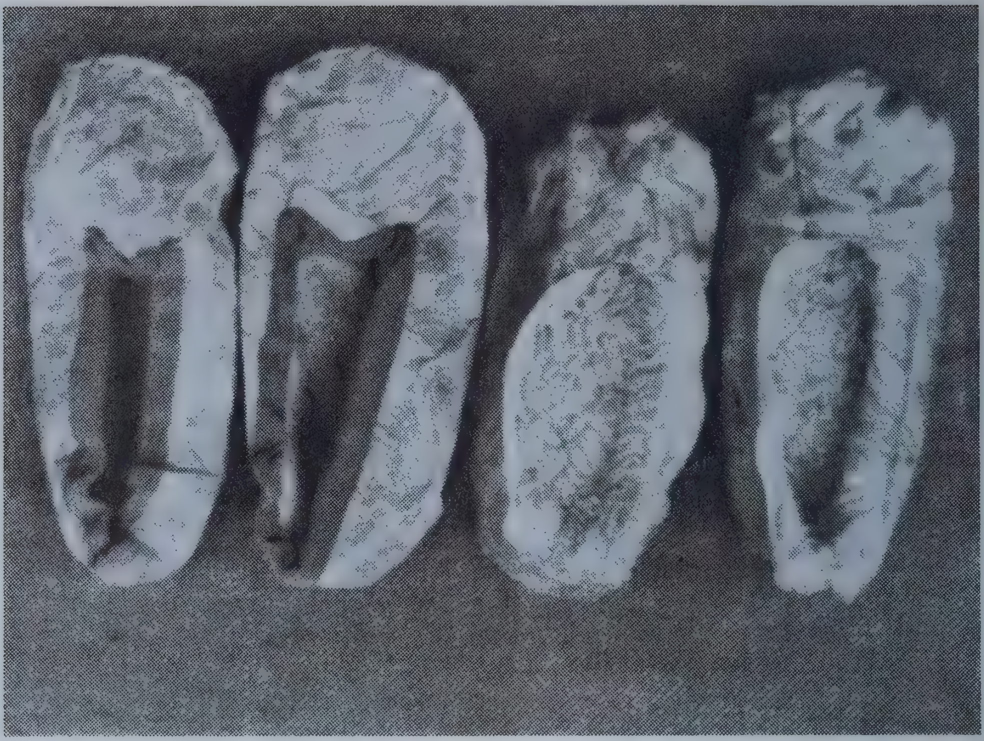

Fig. 22. Sheep-skin slippers.

inhabitant of the island. Actually I saw no more than two pair of these slippers, both of which were specially made on our request as samples for our collections, and they were made of a simpler kind of rope as no Manila was available (see fig. 21). Obviously the main reason why these slippers have fallen out of use is the difficulty in procuring enough hemp since the termination of the sailing traffic.

More common are slippers of sheep-skin. These are made of two pieces: a sole and an upper. The sole is cut roughly to the length and breadth of the foot and sewn to the upper, the both ends of which are sewn together at the heel. There is always used an inside overcast seam, *i. e.* the slippers, like the women's moccasins, are sewn together inside out, and then inverted. They are always worn with the wool inwards. The wool may be cut short, but as often as not it remains uncut, which makes the slippers very warm. Sometimes the upper edge is decorated with a coloured ribbon of cotton or wool, more seldom of silk.

These slippers are only used in the winter, as they are too warm to wear in the summer. Curiously enough, they are never used by the men. A possible reason is that the art to make them is a woman's invention, and the slippers are still exclusively produced by women.

We may now turn to a general description of the dress. As already mentioned the islanders draw a sharp distinction between "Sunday clothes" and ordinary working clothes, and definite demands are made as to the form and appearance, especially of the former.

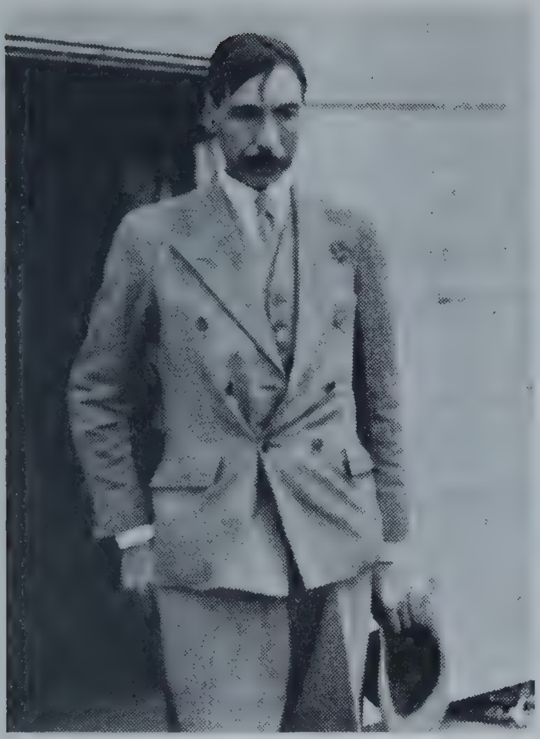

Fig. 23. Man in Sunday dress.

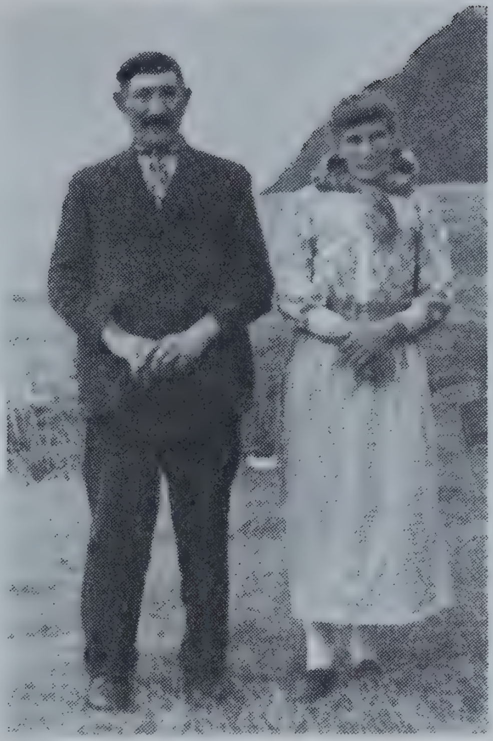

Fig. 24. Older couple in Sunday dresses.

On Sundays the men wear ordinary suits, usually very well kept. White suits are preferred for special occasions, such as Christmas, New Year, and Easter, but only a few possess them. White trousers, however, are not uncommon, even on ordinary Sundays. Ship's officers' jackets with brass buttons are also quite popular, and are sometimes worn with, usually without, distinctions. If they wear a sweater, it must be white, preferably of the home-knit kind, with brightly coloured borders. Actually, only two or three of the poorest and laziest fellows would ever appear on a Sunday in a dark sweater of the usual imported kind. The shirt should preferably be white or striped of the ordinary kind with cuffs and cuff-links. Nearly all have a white collar and tie, or at least, a kerchief or a scarf tied round the neck or fastened with a scarf-pin. White home-knit socks of the finest quality and black imported shoes form the obligatory foot-wear.

The islanders seldom or never go out without a head-covering. They say the sun would burn their faces if they did, and there is something in this excuse. For as they have always been careful to protect their skin against the sun, many of them have a rather sensitive skin. But speaking generally the strong sun is obviously only an excuse for keeping up a conventional way of dressing. In any case, we were never seriously hurt by the sun because we went bare-headed, although we came from a more polar region than Tristan da Cunha. For head-coverings the men mostly use ordinary hats or caps which they get from

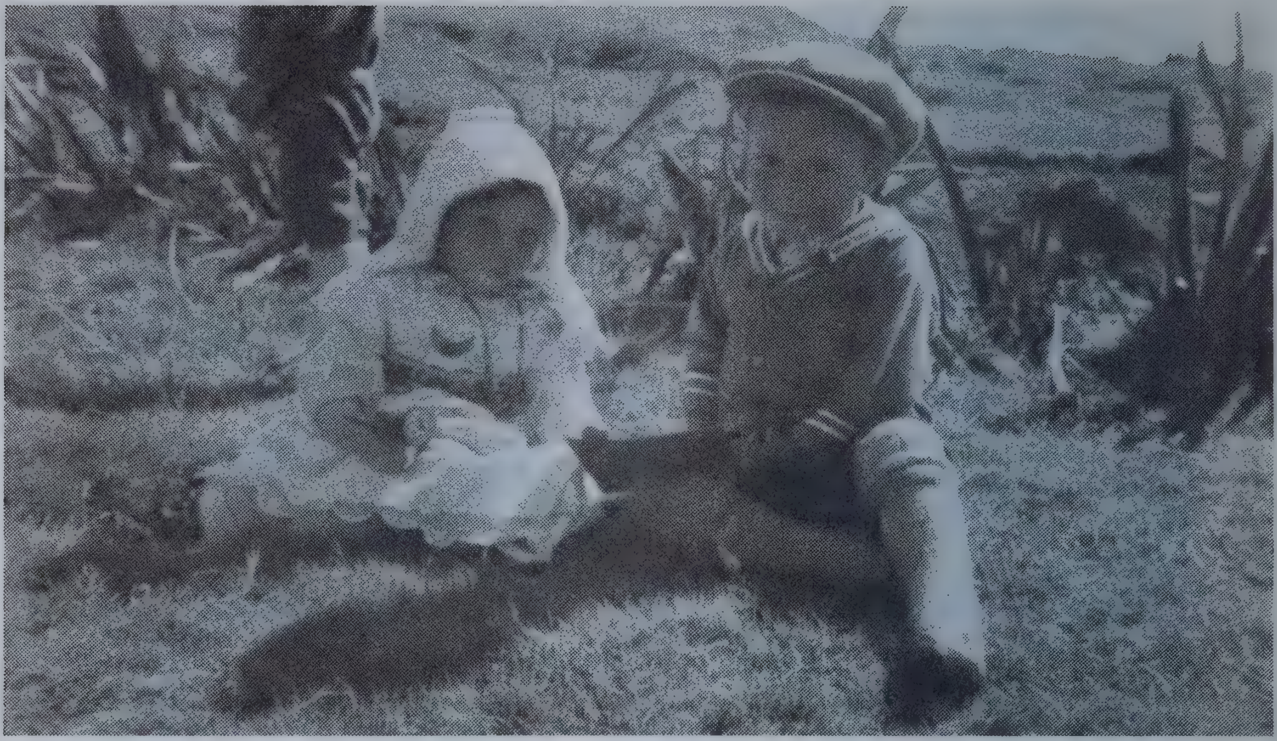

Fig. 25. Children in Christmas dresses.

sailors. For Sunday use they often wear ship's officers' caps, white or blue, sometimes with company badges on them. One man had even a Salvation Army cap which he used on Sundays. They always had special Sunday hats or caps which they took care to keep in good condition as they also did with their other Sunday clothes.

The regular Sunday dress of a woman is still more conventional than that of a man. It consists of a blouse ("jacket") and a skirt ("frock") of figured or otherwise coloured cotton, usually print. Of course bright colours are preferred, and "pink" — which means any shade of red — seems to be the favourite colour. The blouse is high-necked with a broad band round the neck, buttoned behind, and with long sleeves. In front it is decorated with a usually square-shaped ornamentation of lace and tucks, which may be varied in different ways (see fig. 11). One or two parallel pieces of lace and several tucks usually lead from this ornamentation down to the belt. The skirt, which need not be of the same material or pattern as the blouse, is medium wide and reaches half-way down the calf of the leg or, in older women, a little longer. A broad coloured belt is worn round the waist. One-piece gowns and other garments are seldom seen on a Sunday, but may be worn provided they are made of the right material (print) and do not differ too much from the regular type. It is a matter of course that the stockings should be white Tristan-made. The only recognized Sunday foot-wear also for women are black European shoes.

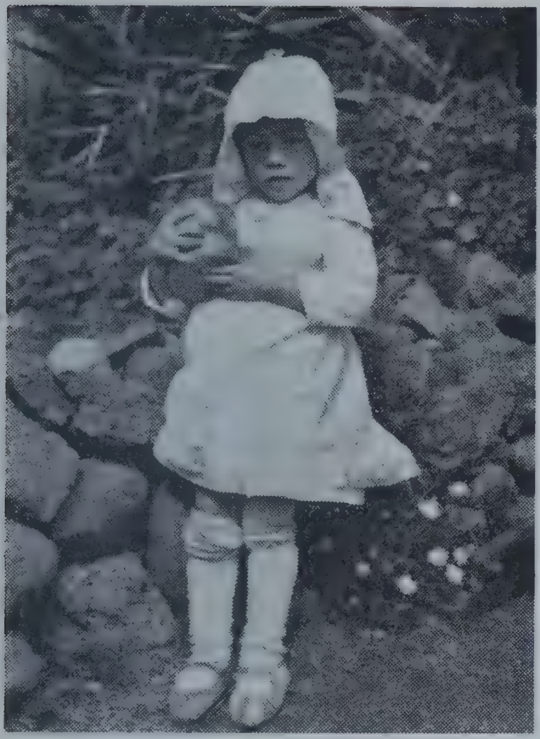

Fig. 26. Little girl in her Sunday dress.

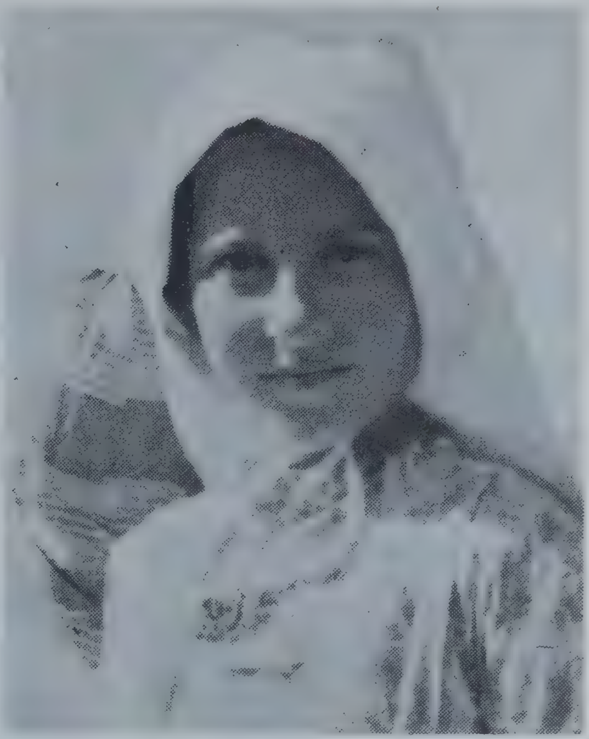

Fig. 27. Girl with "cappie".

No woman, still less than a man, would ever move out of doors without a head-covering except for a short trip to the watering or to the hut for fuel or some kind of food. The only head-covering used by the women, on Sundays as well as working days, is a square kerchief of cotton which is diagonally folded and tied under the chin by a simple knot, just the same as is worn by peasant women in most European countries.

For Christmas and other special occasions, and frequently when going to church, the women wear necklaces of beads and brooches — if such things are possessed.

The children's dresses, of course, are more varied with regard to style. But even here there are some uniformities. The boys preferably wear ordinary suits consisting of jacket and short breeches, sometimes with a waistcoat. More seldom they also have collar and tie like the men. Sweaters are very seldom worn on Sundays even by the boys. Smaller boys sometimes wear pea-jackets of the ordinary kind used by boys in Europe for special occasions. On Sundays they always wear caps.

The girls, on Sundays, are always clad in a long-sleeved gown of cotton, white or figured, with a broad coloured band, preferably of silk, round the waist and tied behind in a large bow-knot. The gown reaches to the knees or, for the bigger girls, a little below. For little girls it is often edged with lace or other finery.

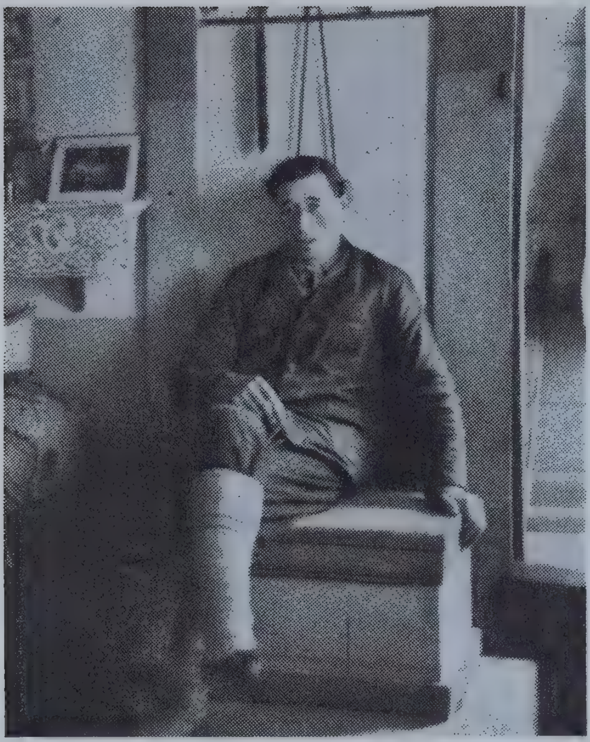

Fig. 28. Man in working dress.

Probably a South-African mixture in the Tristan dress is the head-covering worn by the girls, the so-called "cappie". This is made of one piece of cotton, or preferably linen, which is folded lengthways and sewn together behind so as to form a simple hood which from the back of the neck continues loosely in a kind of cape just covering the upper part of the back and the shoulders (see figs. 27 and 44). To fit the hood to the shape of the head the top corner is folded forward and fastened on the top of the head, sometimes with a bow-knot or a rosette of coloured silk ribbon. Around the back of the neck the hood is slightly gathered by means of a running ribbon which is tied under the chin. This ribbon should preferably be of the same material and colour as the one on the top of the head. On finer cappies for Sunday wear it is arranged in a large bow-knot behind. In front, the hood is provided with a broad border, usually of double material, which may be turned forward to protect the face against the sun (see fig. 26). — It was impossible to trace the history of this head-covering far back. Old photographs show that it was in any case in use about the year 1908.[1] Probably it has a comparatively long history in Tristan da Cunha, and perhaps it is not too much to assume that it was introduced by the first woman who settled on the island, the Boer woman Maria Magdalena Leenders. The cappie used in Tristan, namely, is obviously related to the Kappie which the Boer women in South Africa wear, and which is of Dutch origin (cp. Fischer, 1913, p. 257 and figs. 28—29). The word cappie is also, besides kraal, the only loan-word from Afrikaans which I could trace in the Tristan language.

The footwear of the children differs from that of the adults in that they use home-made moccasins instead of shoes, even on Sundays. Several of the bigger children, however, have shoes.

For working clothes the islanders are naturally freer to wear anything available, and, indeed, on a working day they present a most

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[1] See the illustration facing p. 265 in Barrow (1910).

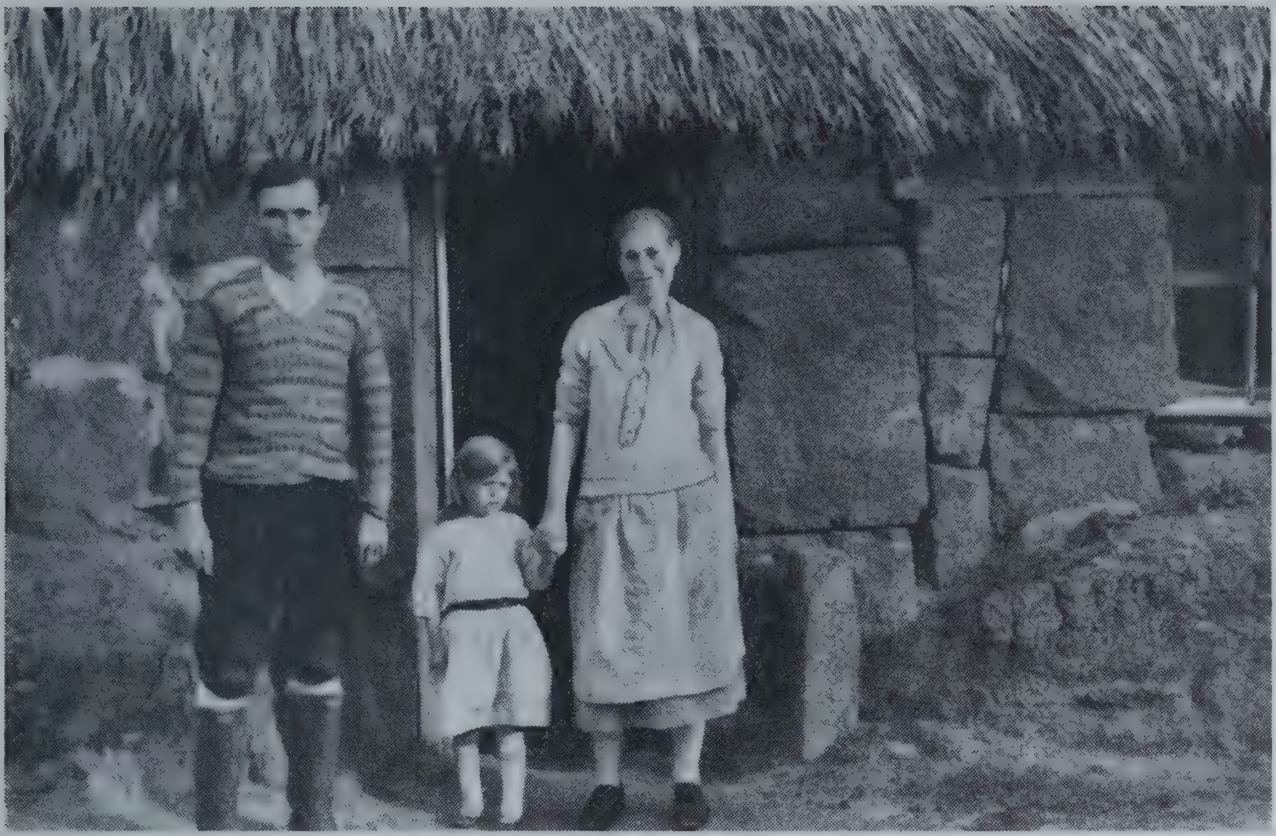

Fig. 29. Group of islanders in everyday wear.

variegated picture in the way of dressing, though not so brilliant as on a Sunday. The men, as mentioned, get most of their working clothes from sailors, and this sets its mark on the kind of dress they wear. Usually they wear ordinary jacket and trousers of any kind of material from ordinary tweed to dungaree and canvas. Especially dungaree suits have become quite common as working clothes in later years. The jacket is worn over an ordinary working shirt with or without a collar. They also generally wear a waistcoat or a pull-over except on very hot days. Instead of the ordinary jackets you will frequently see all kinds of sports jackets and uniform jackets. Pea-jackets are also quite common. The trousers, which are held up by means of a belt, are of the ordinary long kind. But as the socks are usually pulled over the trouser leg, they get the appearance of knickerbockers. The socks are mostly home-knit, but for a working dress imported stockings of any colour may also be worn. Even in the summer the men usually wear two pairs of socks, and it is characteristic of their conventional spirit in the way of clothing, and of their predilection for white socks, that when they have one white and one dark pair of socks, they always take care to put the latter on first.

Home-made moccasins, as mentioned, form the usual every-day foot-wear. When out fishing and in very wet weather they sometimes wear long rubber boots, "sea-boots", which have been imported from

England. More seldom they use wooden clogs, a great number of which have lately been sent as a gift from a firm in Holland. Several of the men also have ordinary leather boots, "ammunitions" is what they call them for a joke. But they practically never use them. Obviously the islanders do not like to have such heavy things on their feet, and the only occasion I saw them in use was when the missionary had arranged for a kind of football match between islanders and members of the Norwegian expedition. On that occasion we had put on our tennis shoes as the most likely equivalent to the ox-hide moccasins of our adversaries But to our surprise there were several pairs of "ammunitions" in action within their ranks. For all ordinary use, for their journeys over land, along the beaches, or over the hill, for their hunting expeditions after birds or wild cattle, or when climbing the hill-side for wood, they prefer their light moccasins.

Of course the clothes are often mended, and the patches are frequently of quite another material and colour than the original garment. But rags are seldom seen, only in the poorer families whose lack of self-respect evinces itself even in this way. The clothes are also kept remarkably clean. Monday is regular "washing day" when women are seen at the waterings all over the settlement washing clothes. Soap is used when available, but may be replaced by a kind of lye made of woodash and water. The clothes are rubbed against a big flat stone (see fig. 45) and are dried on the stone walls surrounding the houses, where they are anchored with stones.

It is characteristic of the islanders' care of their clothes that for more dirty kinds of work they have special clothes. Thus, for instance, when they are going to kill a sheep or a cow, especially when they are going to shoot one of the wild cattle at Stony Beach and frequently have to carry the carcases on their back for a long distance down to the boat, they use a special "blood-shirt", an old pea-jacket, preferably white, or a simple shirt made of canvas which they pull over their other clothes to protect them.

The women's working clothes are of a more regular type, though even here variations may be found. They usually consist of an old Sunday dress of the regular style with blouse and skirt, or a gown of print. Gowns of any other material, *e. g.* wool, are rarer and are only used for simpler kinds of work. Even on a working dress the sleeves must be long, and preferably the blouse should be high-necked. The broad coloured belt is sometimes omitted. When working the women always wear an apron. Frequently an old short-sleeved and open-necked gown may serve as such. Their stockings are always home-knit and white, imported or coloured stockings being never used by the women.

For foot-wear on a working day the women practically never use anything but home-made moccasins. A few of them have a pair of old boots which they use in very wet weather, but they do not like to use them as they are very untidy compared with the moccasins. As the women are those who scrub the floor (provided the house has a floor to be scrubbed at all), they are — in certain families — always careful to take off their moccasins when they are in the house. In the winter some of them put on home-made sheep-skin slippers. But mostly they walk on their stocking soles.

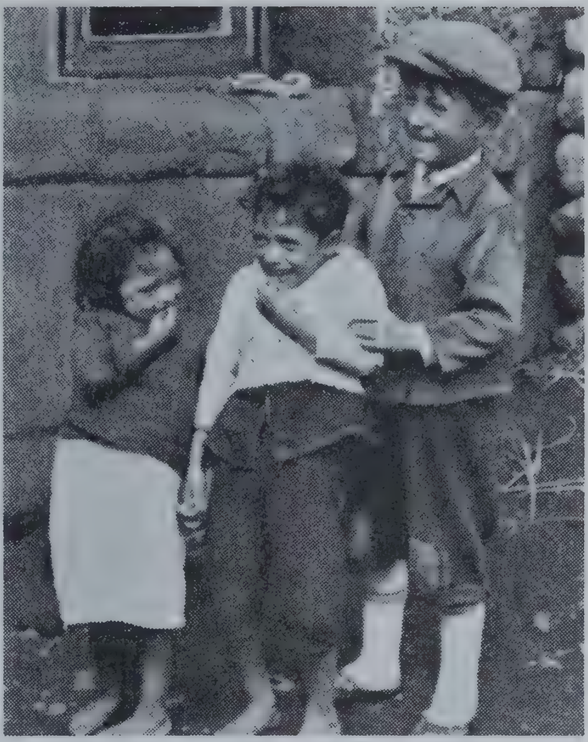

Fig. 30. Children in everyday wear.

The children, for an everyday dress, may wear almost anything available. The boys wear all kinds of suits of any material and colour, blazers (with or without a crest), sweaters, or any kind of children's garments which have been sent to the island from friends in England. The girls are mostly clad in gowns of cotton, sometimes of wool or any other material. Short-sleeved gowns are used as aprons or overalls. On cold days they wear cardigan jackets or sweaters, usually home-knit. On hot days the children often go bare-footed, the boys more commonly so than the girls. Some boys also wear no caps, but the girls mostly have their cappies on.

For underwear the men generally use drawers and an under-jacket. These are often made of home-knit wool or, more seldom, sewn together from cotton or linen or any material available. But imported second-hand things are not rare. In the winter, especially when out fishing or when walking on the hill, the men use long knitted stockings made of home-spun wool. These reach to the crotch and are very warm. The boys mostly use no underwear in the summer. The women's underwear consists of one to three underskirts of cotton or linen, drawers and under-jacket, usually of cotton, and occasionally a bodice of home-knit wool. The women's underwear is usually all white.

Outdoor clothes are very rare. Mackintoshes are owned by some of the men, but most of them have none. Only two or three of the oldest men have an over-coat. The women, if they have anything at all, wear any kind of cardigan jacket or knitted pull-over. The latter may be home-knit or not. Some of them have real tweed jackets. As a makeshift they use a man's jacket or anything available.

In accordance with the strong conventional character, especially of the Sunday dress, which admits no much room for alternative forms, fashion in Tristan da Cunha involves very small and very slow variations in the preferred style of dress. For the men's dress it is doubtful whether we may talk about fashion at all. For, as tailoring is unknown in Tristan, and because of the scantiness of clothes, the men simply must accept as serviceable what clothes they can procure, regardless of the details of their style. But the case is different with the home-made women's dress. Here personal taste plays a certain part, and we have seen that the style of women's dress in Tristan has been, in a way, emancipated from the changing European style and fashion. This, however, seems to be due to a very slow development of fashion causing a stagnation in the Tristan style, rather than to an independent development of fashion in Tristan da Cunha.

For, as far as we can judge from old photographs — and this is our only source of information in this question as there are no sufficiently detailed descriptions of the dress from former years —, there have been little or no alterations in the general style of dress during the last thirty years at least. Only a few details have altered since 1906. At that time the skirt was definitely longer than it is to-day, and the sleeves were wider and slightly ballooned according to the contemporary European fashion. Hats were also used for Sundays and other occasions.[1]

However, there is one province where fashion seems to be more active, with a comparatively quick sequence of changing forms. That is in the coiffure of the women.

To-day there are two different modes of head-dress in use in Tristan. Firstly the women wear a coiffure where the front hair is laid forward in a roll and then fastened in a small knot on the top of the head, while the rest of the hair is gathered in a knot in the back of the neck. We may call this coiffure No. 1 (fig. 31). It is worn by most women above the age of 30. The other coiffure, which we will call No. 2, has a parting on either side of the head, and all the hair is gathered

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[1] See the illustrations facing p. 130, 261, and 265 in Barrow (1910).

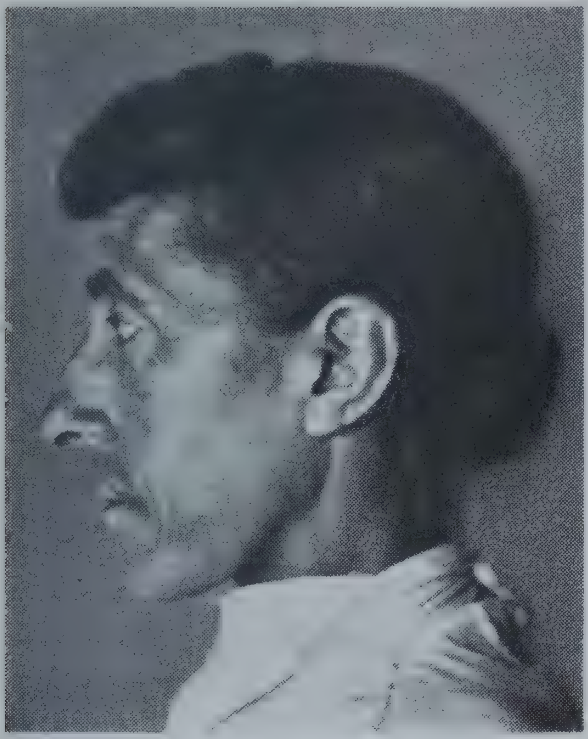

Fig. 31. Coiffure "No. 1".

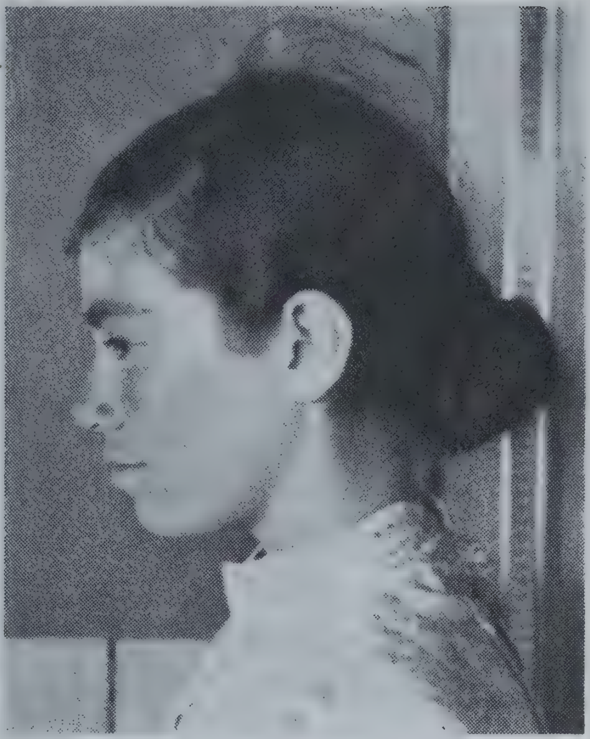

Fig. 32. Coiffure "No. 2".

in a knot in the back of the neck (fig. 32). Great stress is laid on the smooth appearance of this coiffure, and to attain this some women with curly or wolly hair rub it with soap. This coiffure is worn by all young women below the age of 30 and, otherwise, by women of all age-groups.

None of these coiffures are original in Tristan da Cunha. They are both of European origin. No. 1, with the front roll, corresponds to a coiffure which was modern in Europe in the last part of last century, and No. 2 is the coiffure of the European woman in the second decade of this century.

Even in Tristan da Cunha No. 1 is obviously the older of the two. About 15 years ago it seems to have been practically the only coiffure in use in Tristan.[1] If we go a further 15 years back, we will find that this coiffure was used alternatively with a third, obviously still older, coiffure, with a middle parting and, by the younger women, with a fringe.[2] This latter coiffure obviously corresponds to the European coiffure of the 1880-ies.

These changes in the coiffure of the women, of course, are a consequence of nothing but a changing taste determined by social factors, in other words: of a changing fashion. So even in this community, with all its conventionalism and conservatism, fashion is at play as a factor involving change. The reason why it is more active in this special domain compared with the stagnation of the style of dress, may be that the forming of a new coiffure is connected with a much simpler technique than the formation of a new style of dress. It is characteristic, however, that fashion in Tristan da Cunha follows the rhythm of European fashion, though at a very slow pace.

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[1] See the illustrations facing p. 256 in Wild (1923), as well as the illustrations in Rogers (1928).

[2] See the illustrations facing pp. 130 and 261 in Barrow (1910).

Housing.

The settlement of Tristan da Cunha is situated in the northern part of the north-western plain where there is a kind of headland naturally bounded to the south-west by Hottentot Gulch, which makes its way to the sea through the plain. On the north side of this headland are two open bays with the two beaches Little Beach and Big Beach which offer fairly good landing places for boats, being well protected against the prevailing western wind and swell, though they are quite open towards the north. The ground on the plain is even and slopes gently towards The Bank, 30 m above the beach. To-day it is only covered with grass, the original vegetation of tussock and phylica bushes having been cleared away in the old days. A small, but constant flowing stream, The Big Watering, runs from a spring at the bottom of the hill-side down to Little Beach, where it ends in a waterfall unto the beach. Particularly the combination of a constant stream of fresh water and fairly good landing places for boats, makes this headland undoubtedly the most convenient place for a settlement on the island. Moreover, access is easy, even for a vehicle, across Hottentot Gulch to the larger southern part of the plain which is the most extensive contiguous area of cultivable land on the island.

The little settlement is situated right on the west side of The Big Watering. It consisted in 1938 of 36 dwellings, besides a church, a combined school-house and dancing hall together with a store-house, and a missionary's house. The houses are spread over an area of about 500 by 300 m, with an average distance between the houses of 30—50 m. They are scattered just in a haphazard way over the area, and in complete disorder, new houses having been built where there happened to be a space between the other houses, or always further to the west.[1] Only

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[1] It is a curious fact that the settlement only expands towards the west. As a matter of fact, only two of the 14 houses situated to the west of brook No. 4 (see fig. 33) are more than 20 years old, and most of them are much younger, while on the other hand 11 out of the 22 houses situated between that brook and The Big Watering were built before 1906. Only one settler is known to have built his house on the east side of The Big Watering, that is to say Marcus Johnson, a Norwegian who settled in 1877 but left some five years after. Remnants of his house are still visible,

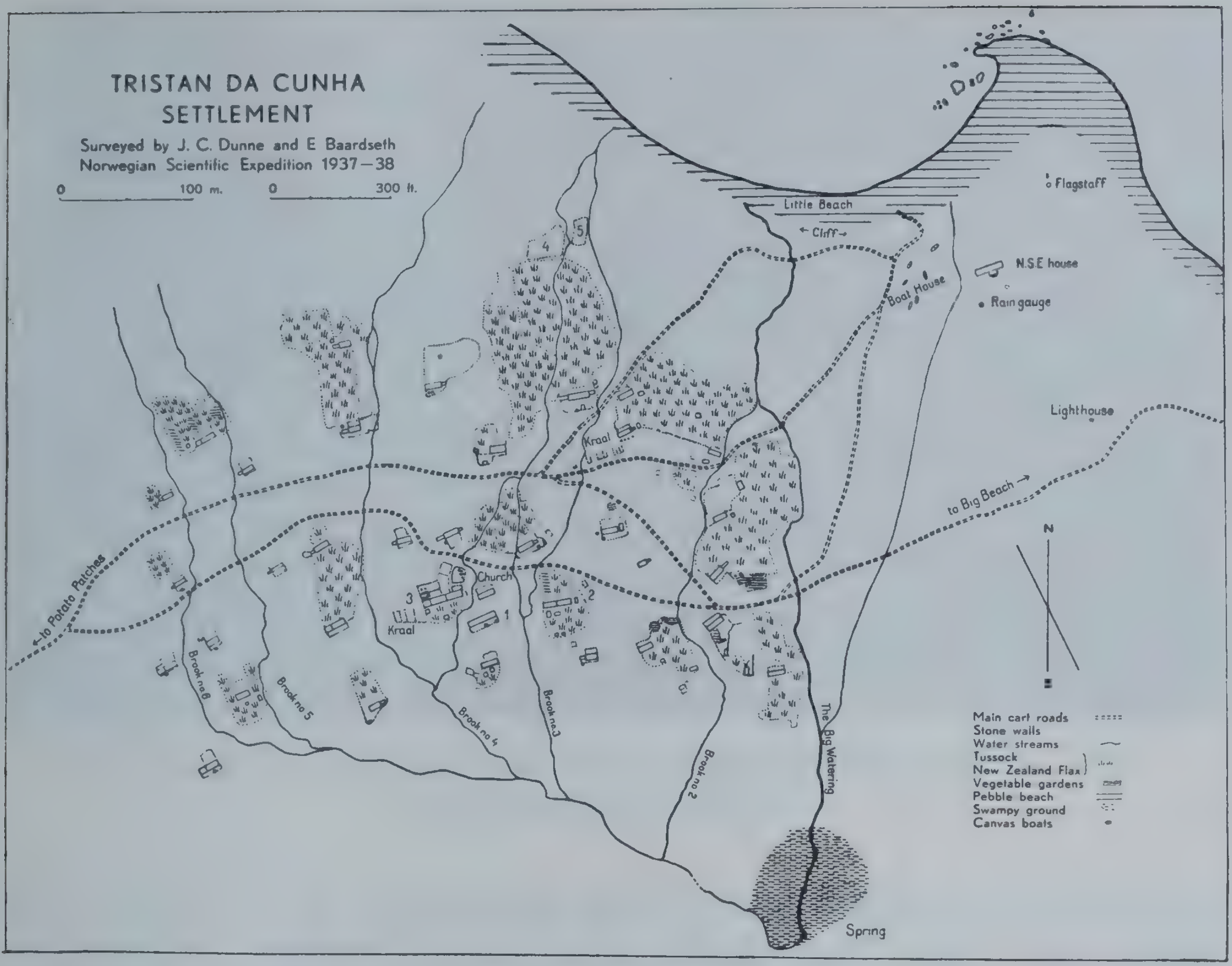
TRISTAN DA CUNHA
SETTLEMENT
Surveyed by J. C. Dunne and E Baardseth
Norwegian Scientific Expedition 1937—38
0 100 m.
0 300 ft.
Little Beach
← Cliff →
Flagstaff
N.S.E house
Boat House
Rain gauge
Lighthouse
to Big Beach →
← to Potato Patches
Kraal
Church
Kraal
1
2
3
4
5
Brook no 8
Brook no 5
Brook no 4
Brook no 3
Brook no 2
The Big Watering
Spring
N
Main cart roads
Stone walls
Water streams
Tussock
New Zealand Flax
Vegetable gardens
Pebble beach
Swampy ground
Canvas boats

Fig. 33.

in three cases are two houses built together with a common gable wall. Otherwise there are no regular groupings of the dwellings, a fact which reflects the social organization of this society as a community of single, self-dependent families. However, all the houses are placed approximately in the same way in the terrain, in the direction east-west (see fig. 33 and 34). This, as we shall see, has particular reasons in the lie of the land and in the prevailing direction of the strong winds.

Many of the houses, especially the older ones, have a garden, a large or small piece of ground enclosed by a stone-wall, mostly arranged so that the house itself forms part of the wall. These gardens are mainly filled with tussock and flax, some of them also with a few

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and the place is still known as Johnson's House. This onesided expansion towards the west is the more curious as there is no obvious reason for it. There are no more difficulties of ground on the east side of The Big Watering than there are on the west side, i. e. practically none. And a house situated on the east side would have a much nearer approach both to The Big Watering itself and to the two beaches than those houses which have recently been built in the extreme west end of the settlement.

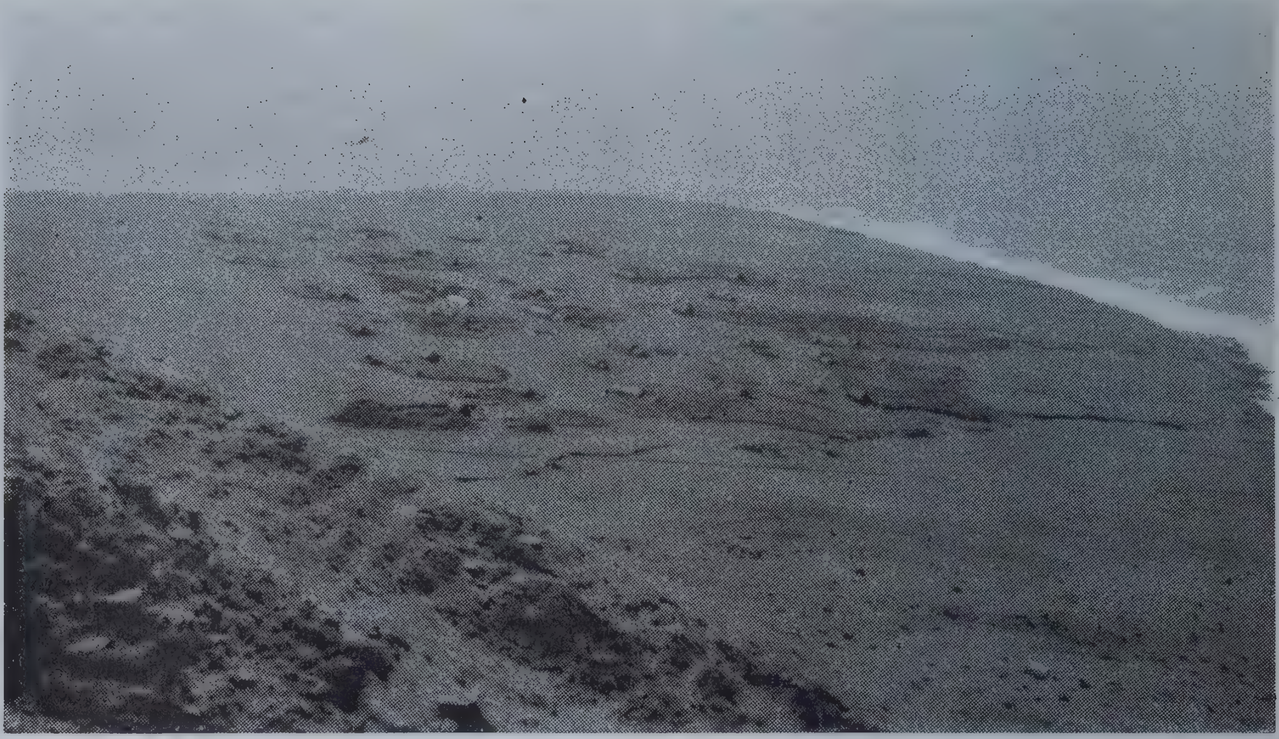

Fig. 34. The settlement as seen from the hill-side. The white roof of the church is clearly seen.

vegetables. In addition, nearly every house has a small flower-garden in front of it, with roses, Indian cress, sunflowers, etc., or at least a rectangular enclosure from the one gable end to the other. Sometimes, too, they have a similar enclosure at the back.

The water supply of the settlement, as mentioned, is taken from The Big Watering. From near the source of this brook the water is led in a net of artificial brooks over the settlement area (see fig. 33).

Architecture in Tristan da Cunha, like all other aspects of Tristan culture, is based on a genuine European tradition. Naturally, therefore, the form and construction of the houses are true European, or rather English. At least they were so originally. However, in the course of time essential alterations and modifications have been introduced in accordance with the special conditions of the physical environment, improvements having been made on the basis of gathered experiences. On the other hand, even in this respect, there has been a considerable lowering of the standard, a simplification both in form, outfit, and workmanship caused by the increasing isolation and the consequent want of the necessary tools and material. Therefore, there is a great difference both in the quality and to some degree also in the form of old and new houses in Tristan, houses erected in later years being in every respect of a much poorer quality than those having been built before the end of the last century.

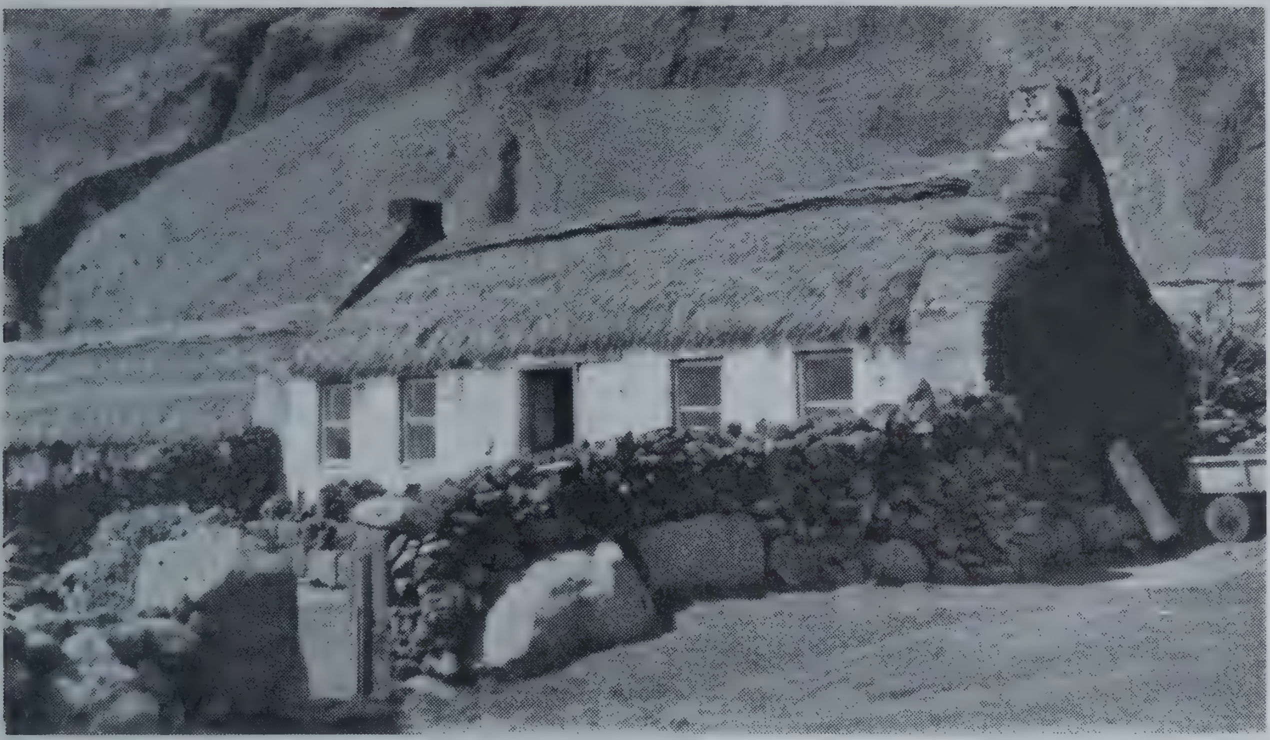

Fig. 35. One of the older and best equipped houses.

Thus we may — with some justification — speak of a special Tristan architecture, with peculiar forms and characteristics, and there are mainly two environmental factors which have been instrumental in forming it: the windy climate of the island and the nature of the accessible building material.[1]

The Tristan dwelling house is a comparatively long, low building with pointed gables and a ridged roof. It is usually built of large blocks of a soft volcanic rock, the so-called soft-stone, which is taken from the hill-side not very far from the settlement. This rock is of a dark brownish colour, porous, and so soft that a nail may be driven into it. The blocks are easily hewn to the desired shape by means of ordinary

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[1] However, there is a striking likeness between the present Tristan dwelling and the typical dwelling of the Shetland Isles. Especially there is a conspicuous conformity in certain details which seems to indicate a connection between the two culture areas. Even the Shetland house is a stone house with pointed gables and thatched with straw, and, as in Tristan da Cunha, the roof has been lowered in between the two gables, a little lower than the upper edge of the gable wall, so that the thatch is well protected against the strong winds. Also in the supporting roof construction there are great similarities, and even so characteristic a trait as the rectangular fire-place in the gable end, with a chimney through the wall itself up to the point of the gable, is common for the two areas. Cp. Rousell (1934), see also Grieg (1942), especially the illustration Pl. XI, 1.

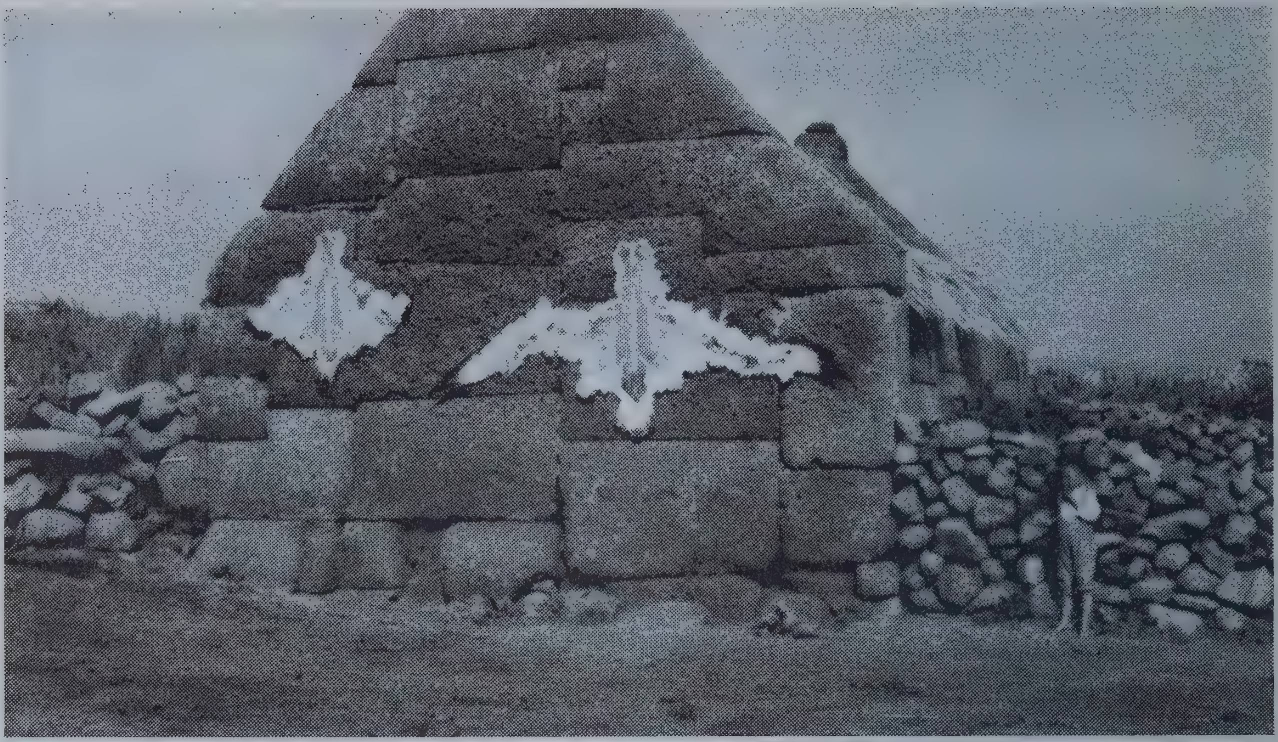

Fig. 36. The gable wall of one of the older houses. Skins are nailed to the wall for drying.

choppers (though this practice does not fail to set its marks on the choppers as well). In former days the stones were blasted from the hill-side by means of dynamite, and quite large blocks could be obtained in that way. However, during the last 40 years or so no dynamite has been seen in Tristan, and in consequence of this the islanders have lately been under the necessity of breaking out the stones with crowbars. This involved firstly an increased amount of work to obtain the stones, and, secondly, the blocks procured in this way were of a much smaller size than those obtained by means of dynamite.

In later years, therefore, the islanders have partly built their houses of another kind of stone which is found everywhere near the hill-side, especially where land-slides have occurred. This is the blue-stone. It is a massive and very hard kind of stone, and the islanders must use the blocks in the form wherein they find them as they have no means of forming them according to requirements. As building material, of course, this stone is of a much poorer quality than the soft-stone. It is of a light bluish colour, hence its name.

A similar kind of rock, of the same colour and hardness as the blue-stone, but of a schistic structure, is found in one place not very far from the settlement. Even this stone is called "blue-stone" by the islanders. It may be broken out in neat, comparatively thick slabs which are well

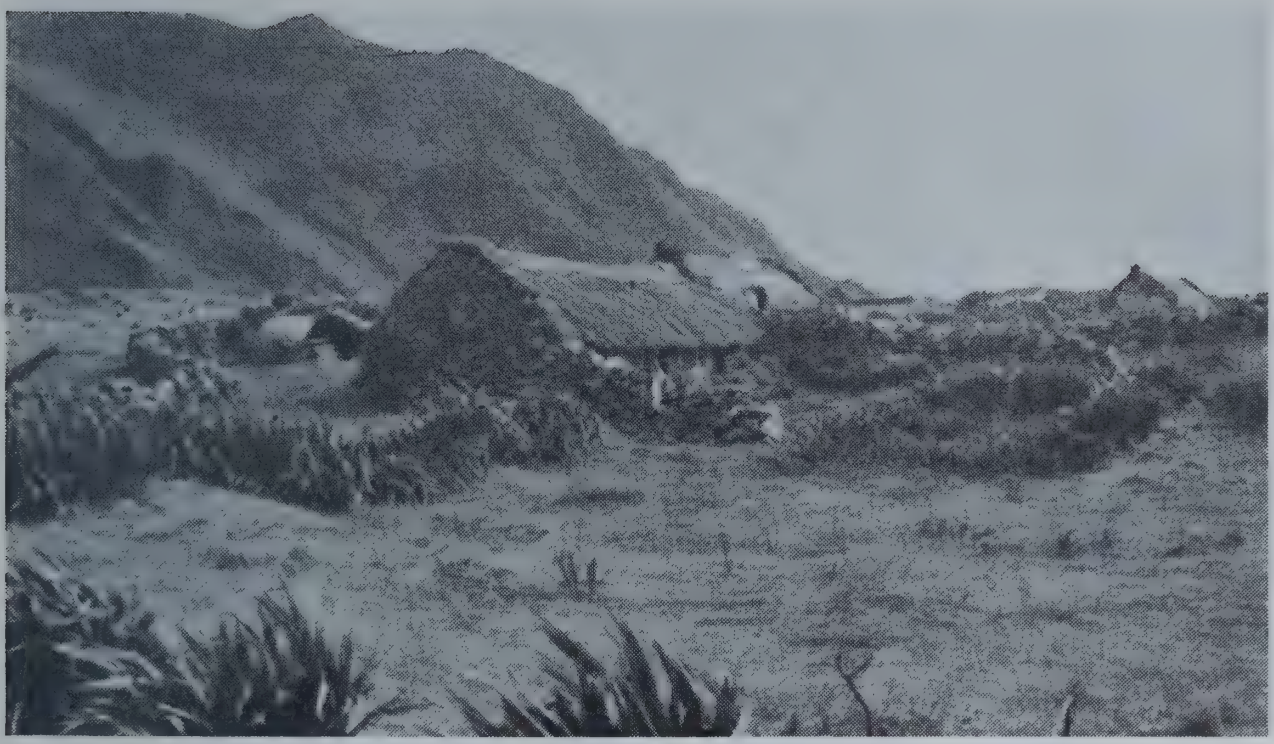

Fig. 37. A gable wall built of blue-stone (light), edged with soft-stone (dark).

suited for building purposes, but without the use of explosives it is almost impossible to get out considerable quantities of it.

As mentioned above, the houses are all placed in the direction east—west. Thereby they meet the west wind with the gable end. This wind is not only the prevailing, but also the strongest and most dangerous wind in this part of the island. The gables, therefore, are built strongly and solidly, usually 3—4 feet thick, and in the lower middle part even thicker (see fig. 42). The side walls usually have a thickness of 2 feet. After the plot has been cleared of the turf and levelled, the walls are placed directly on the ground without any foundation. The masonry, as mentioned, is of a varying quality. In the older houses the large blocks of soft-stone are fitted neatly together, and for the most part they are connected by mortar. In some cases the front wall has even been plastered. The new houses, according to the more primitive methods of getting out the stones, are built up of much smaller blocks, and the stones are only roughly hewn and put together, usually without any binding material, or, in some cases, by means of wood-ash mixed with water. On the inside the walls are tightened by means of moss. Even the new houses are mostly built of soft-stone, and the front wall is always built of this better material. Only one house has a front wall entirely built of schistic blue-stone. The ordinary blue-stone, however, is sometimes used in the back wall, and in a few cases even the gable

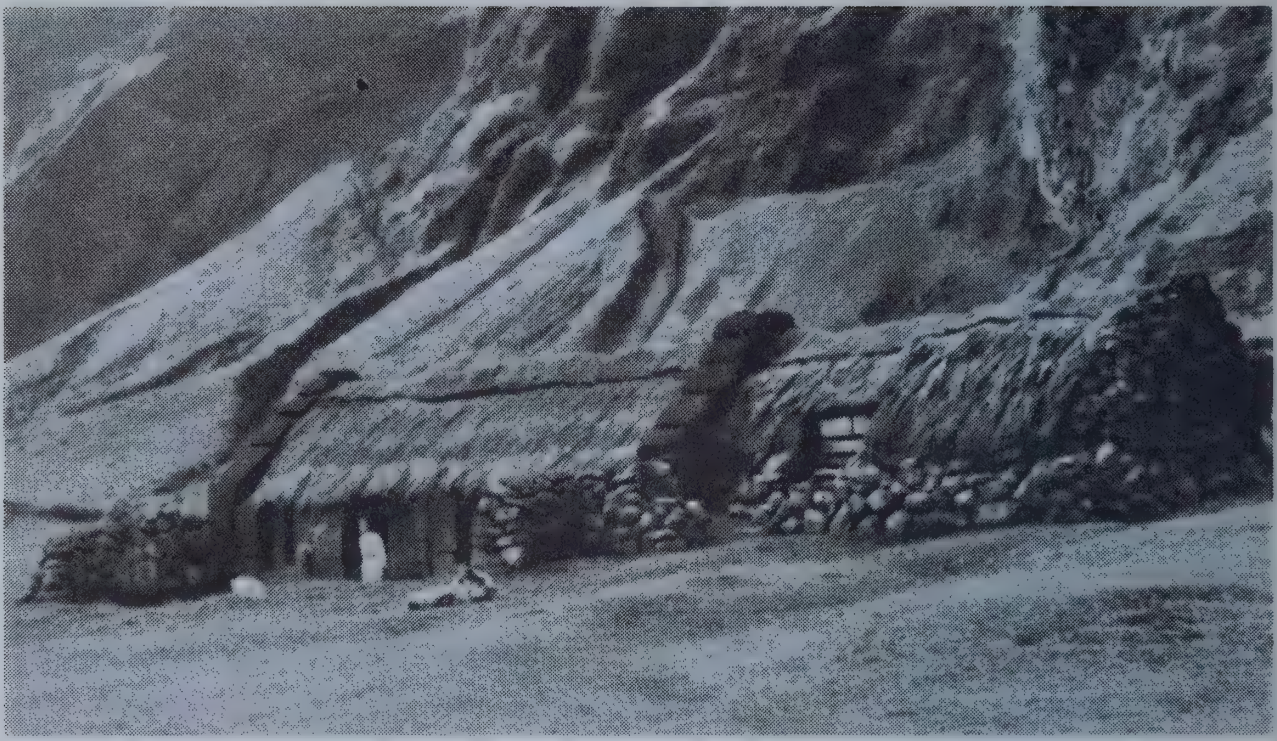

Fig. 38. Typical Tristan house of a more recent date.

wall is partly or entirely built of blue-stone, in the latter case being just edged with large blocks of soft-stone to give a firm hold for the "rafters" (see fig. 37). For fire-places and chimneys, however, which are both built into the gable wall, soft-stone is required as the blue-stone splits when heated.

Of course, the new houses are not so solid as the old ones, and as the heavy western gales make great demands on the solidity of the houses, the islanders have been obliged to take other precautions against the wind. While the old houses were built entirely above the ground, with the floor on a level with the highest part of the adjacent ground, the houses more recently erected have been dug partly into the ground, often so much so that the back wall is almost completely hidden right up to the eaves.

The front wall, which is always the north wall, has two or more glass windows and one or two doors. The older houses, however, have usually one door in each side wall. The doors are mostly divided horizontally in such a way that each part may be opened separately. In the old houses even the windows are divided in the same way, and they may be opened by sliding up the lower part.

The first houses built on Tristan obviously had a hipped roof (see fig. 39), but this style of building probably exposed the thatch too much to the wind. In any case, for a long time the islanders must have accepted

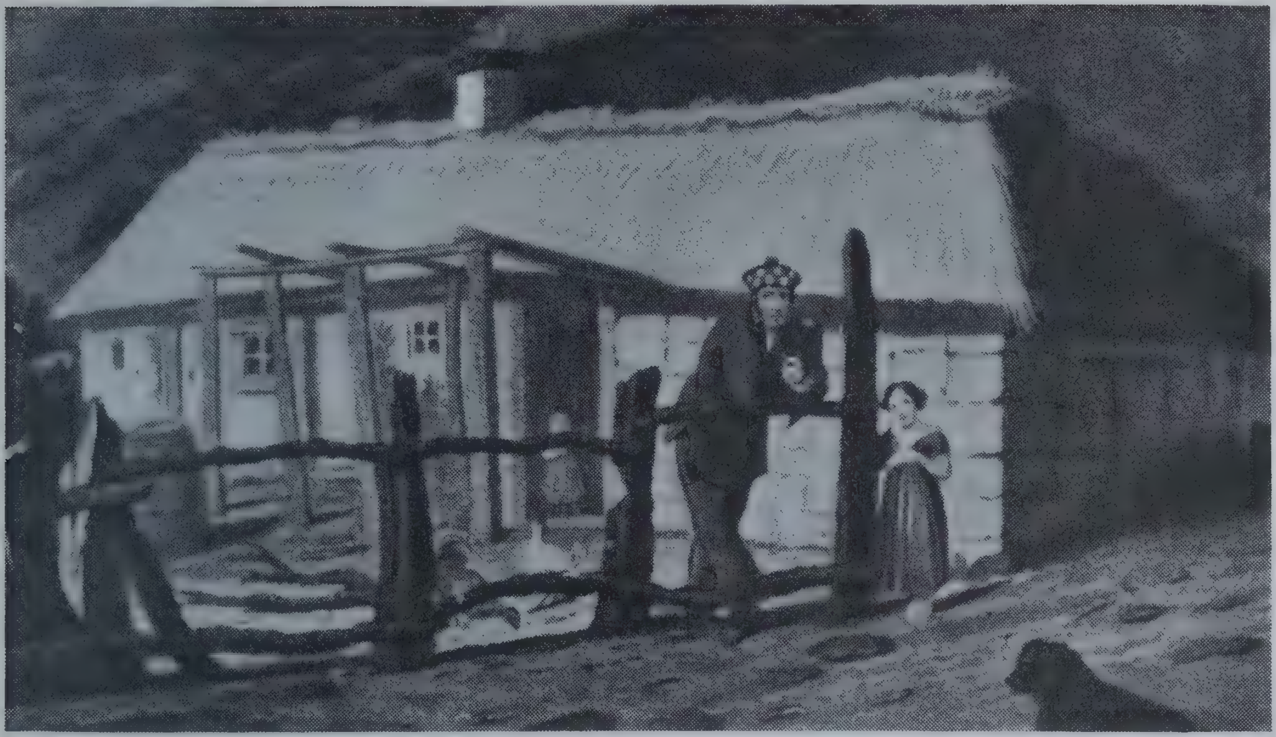

Fig. 39. William Glass' dwelling, drawn by Earle in 1824.
From A. Earle, A Narrative (1832).

the present form of roof, with high solid gables against the wind. As a further protection the roof is built in between the two gables, a few inches lower than the upper edge of the gable wall (see illustrations).

The supporting roof construction is made of selected straight stems of the island tree. The principals are bolted together in the top joint and supported by a cross-stick, a horizontal rod connecting the two opposite principals near the ridge. To the top of the side wall the principals are sometimes fastened by means of large nails which are driven into the stones. The opposite principals are slightly crossed in the top joint, thus forming a firm support for the ridge-pole, which is placed on top of them. Along the sides of the roof, likewise in the length direction of the house and resting on the principals, run the so-called rafters (purlins). These, as well as the ridge-pole, are fastened to the gable walls by means of nails or simply put in between the stones. This wood-work is exposed to destruction through a wood-carving chafer, the so-called woodlouse, and must be renewed every ten or twelve years.

The thatch is made of tussock grass, bundles of which are tied to the rafters by means of string, one row of bundles to each rafter. Instead of string the islanders sometimes use the leaves of the flax which they just split into long narrow strips. This is almost as strong as ordinary string, but not so durable. The grass bundles are placed with the root end up, except in the bottom row where they are placed with the root

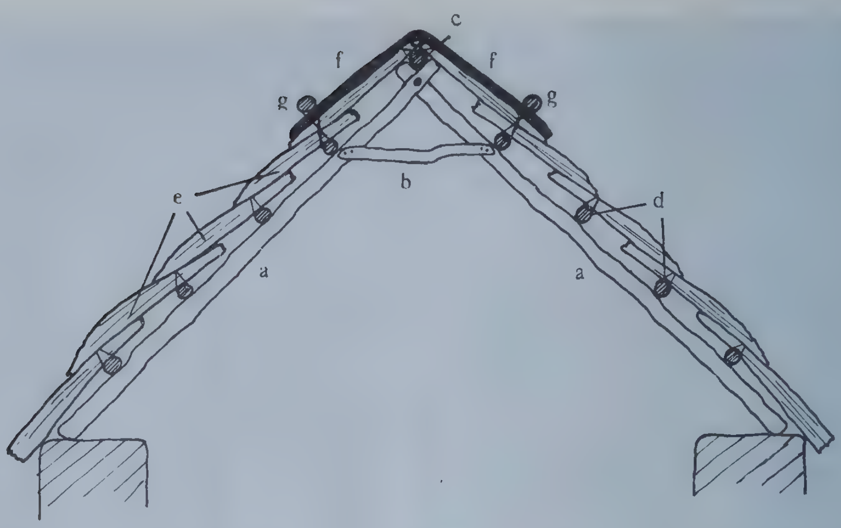

Fig. 40. The roof construction of a Tristan house. a principals, b cross-stick, c ridge-pole, d rafters, e thatch, f turf.

end down. The ridge is protected by thin flakes of turf. These are held in position by means of poles, in one or two cases by chains, which are placed on each side of the roof and tied up to the top rafter or to the principals (see fig. 40).

This thatch, of course, is not very strong, and it is exposed to great strain in that rainy and windy climate. Quite often, therefore, it has to be renewed, and especially during heavy gales the islanders must keep a constant look-out for holes and immediately mend them. Sometimes they have to get out on a stormy and rainy night to do so. For as the grass bundles are not tied separately to the rafters, but sewn together with one length of string, a hole once made will easily get bigger, and if not mended at once will cause the whole thatch to come unstitched.

In recent years corrugated iron has made its entry as roofing in Tristan. However, this material is very hard to obtain for an ordinary islander, and until now it has only been used on the church and on part of the store-house, both houses where the S. P. G. has been particularly interested and has been instrumental in procuring the building material. In addition, there is a corrugated iron roof on an "all hands' hut" in Stony Beach.

The houses vary in size from 490 to 213 square feet. They are usually 10—12 feet broad, and the length varies between 21 and 42 feet (all inside measures). They are divided transversally by means of simple wooden partitions into two or three rooms. Every house has a "kitchen" and a small "bed-room", most of them in addition a "front room" which is usually the largest room in the house (see fig. 42). In general, the houses are first built with only two rooms, a kitchen and a bed-room, and then enlarged as the family grows bigger. As a rule each family has

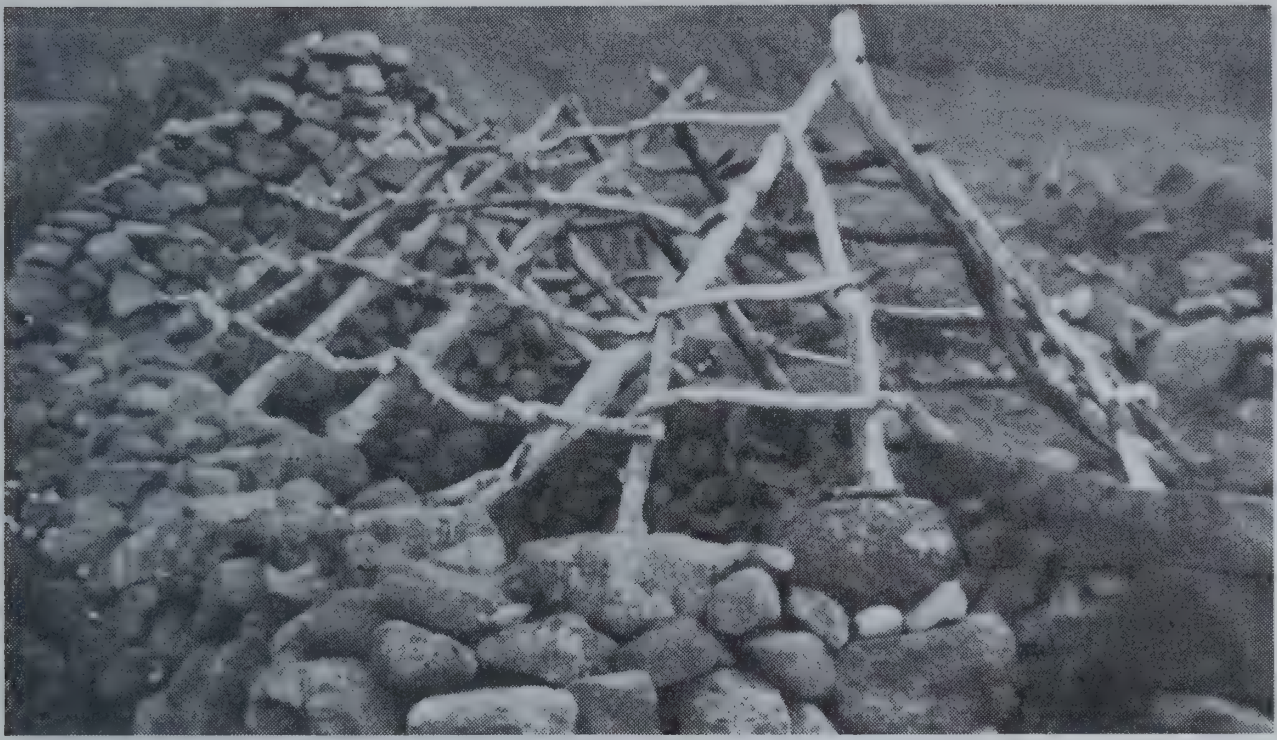

Fig. 41. Unthatched hut, showing the supporting roof construction.

its own dwelling. It happens, however, that two families live together in one house, with or without a common household. In this case the dwelling is usually divided in two parts, each family having its own part, and sometimes even the direct approach between the two parts has been blocked.

As mentioned above, the fire-place is built into the gable wall, and the smoke is led by a chimney through the wall. The fire-place itself consists of a comparatively large rectangular niche in the wall close to the ground. It is not very deep, usually 1½—2 feet. Two large stones are placed in the bottom of it, one in each corner, and two iron bars resting at both ends on these stones form the support for kettles etc. (see fig. 43). If the house has a wooden floor, there is left a square formed open space in front of the fire-place. This fire-place is used for heating as well as for cooking. In small houses with only two rooms there is just one fireplace, namely in the kitchen. In the bigger houses there is also one in the front room. In summer, however, the front room fire-place is usually closed by means of a shutter or a piece of canvas against the draught.

Certain demands are made on the interior of the dwellings. But wood for floors, wainscots, and ceilings is a very costly thing in Tristan da Cunha. The island tree is unfit for building purposes except when the whole stem can be used, as in roof construction. Otherwise, all woodwork must be imported. In former times, even in this respect,

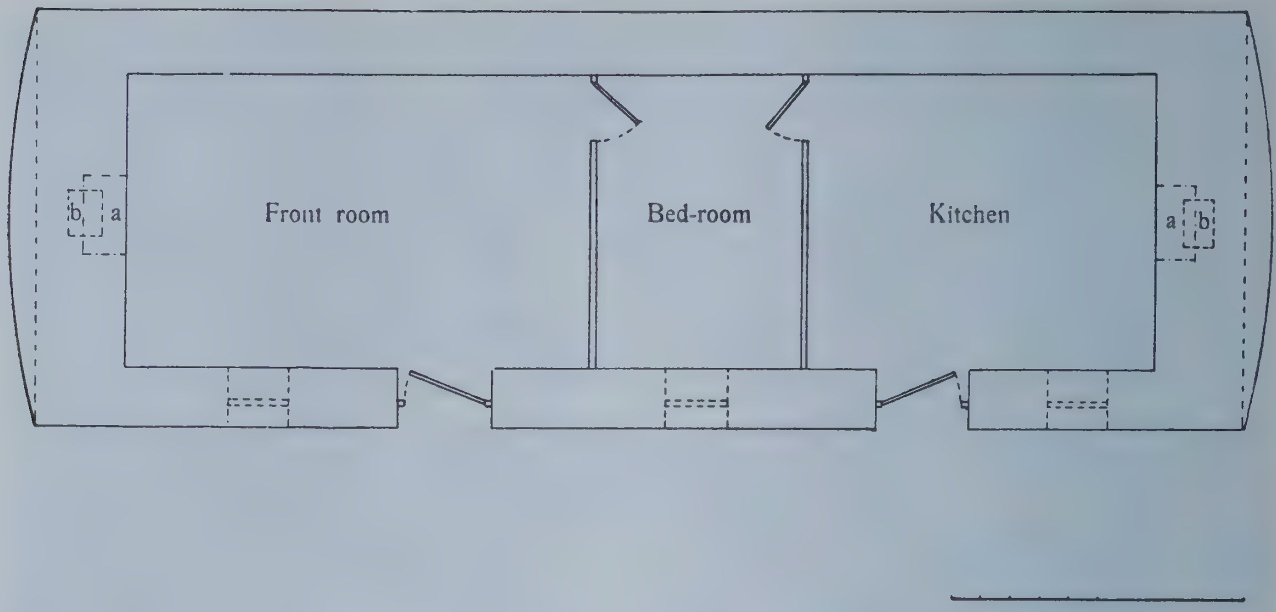

Fig. 42. The groundplan of a typical Tristan house. a fireplace, b chimney.

the islanders were better off than they are to-day. In the days of the sailing vessels the island of Tristan da Cunha was not only a welcome provision station on the long voyage to the Far East, but also a dangerous spot on account of its fog and its difficult conditions of wind and currents. In the course of the years 1817—1898 there are records of no less than 16 or 17 total shipwrecks on Tristan and the neighbouring islands. And, as a matter of fact, these shipwrecks during all this time supplied the islanders with much good and solid woodwork for their houses etc. There are still houses in Tristan where almost every bit of the outfit — from the solid ship's planks in floor and wainscots to the brazen catch on the door — is evidence that the owner has once had the benefit of a shipwreck.

However, since 1898 no shipwreck has occurred on the shores of Tristan, and a severely felt want of woodwork of every kind has been the consequence. Some wood is occasionally sent to the island as a gift, and now and then the islanders manage to barter a few planks from a passing ship. But these supplies are nothing like sufficient for the rapidly increasing population, For a great part the islanders depend on driftwood which they pick up on the beaches. Of course, this wood is not of the best quality. If it is not rotten, it is frequently perforated in every direction by a wood-carving mussel. But every piece found is tried on the spot by hitting it against a stone and, if it gives a good sound, carefully taken charge of. However, the quantity of wood procured in this way is very small, and what good pieces are found are in the first place used in the boats where the woodwork forms a more

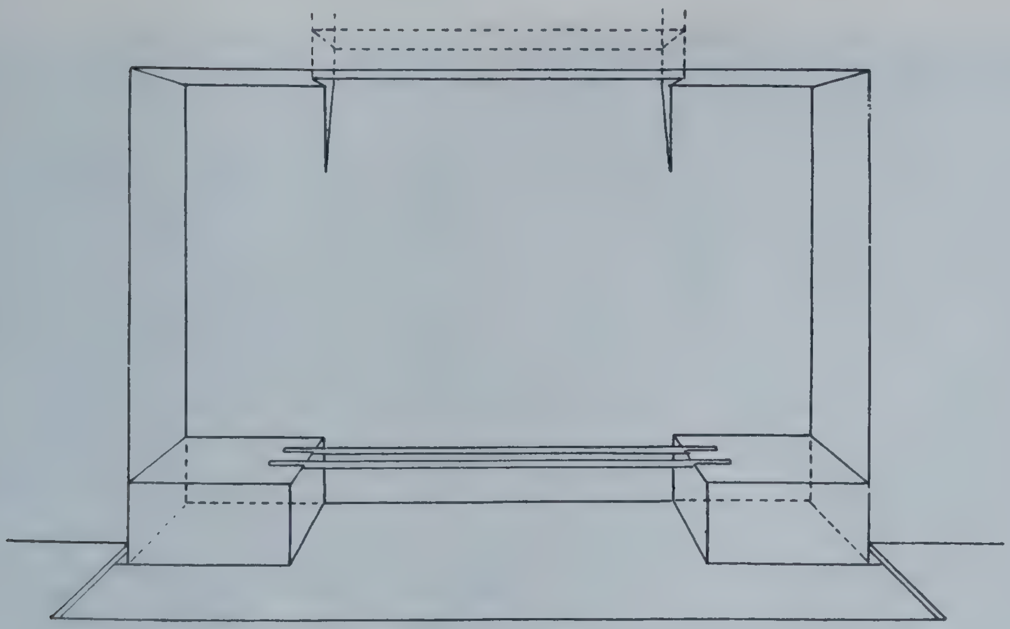

Fig. 43. Perspective sketch of a Tristan fireplace.

essential part of the construction than in the houses. It takes years, therefore, to collect enough wood for a decent dwelling, and many are those newly-married couples wo have to move into an unfinished house and must try to equip it gradually as the necessary wood is procured. In a great many houses the owner has had to be content with ordinary box-boards for the woodwork instead of real planks.

According to these conditions the interior of the Tristan houses show every degree of lack of wood, and it is a rule — though there are exceptions to it — that the most newly erected houses are those which are most poorly furnished with wood.

The first thing a Tristan islander puts up in his house is a wooden partition dividing it into two rooms, a kitchen and a bed-room, and though the partition may be of the simplest design, made of box-boards and odd ends of planks fitted together on a frame-work of uprights and cross-pieces, there is no dwelling house on the island with less than two rooms.

The next thing he will do is to "put down the floor". Actually there is only one house in Tristan which has no wooden floor at all, and two others have a "dirt-floor" in one of three rooms. The floor is always made of real planks which should be planed. It is laid down on sleepers resting directly on the ground. It is never painted, but in most houses it is scrubbed every day.

Many houses have no wainscots or ceiling, or just a part of the wall furnished with wainscots, frequently made of box-boards. These houses are likely to be very draughty, and to avoid this the walls are papered, usually with old newspapers and magazines — preferably with pictures

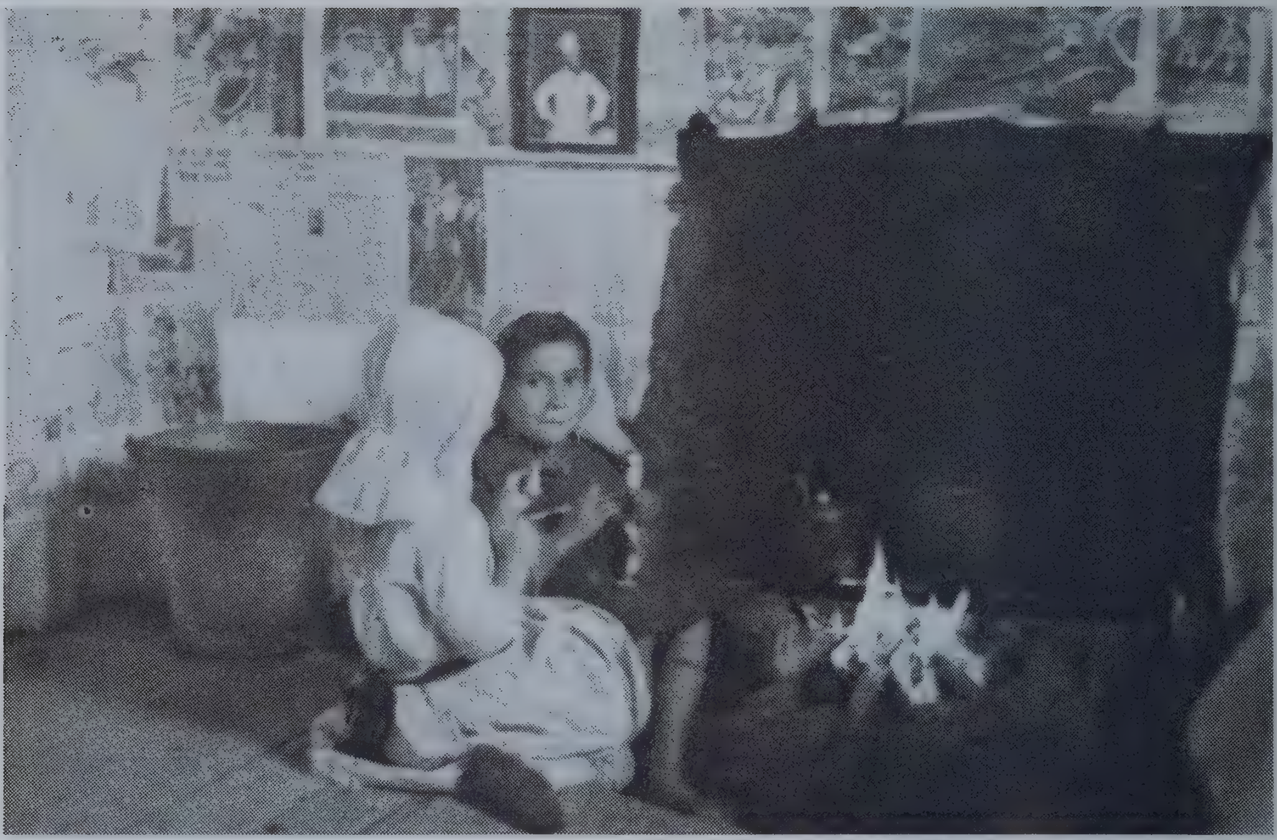

Fig. 44. Interior with fireplace.

– which are fixed to the stone wall by means of a paste made of crushed potatoes and water (see fig. 44). Likewise, to take away the draught from the roof, a piece of old canvas is sometimes stretched over the room, in the first place over the bed-room. In one or two houses a kind of ceiling has been provided by means of a piece of corrugated iron over a part of the room.

On the other hand, in view of the difficulties in providing the necessary wood for the interior of the houses, it is simply astonishing that so many houses erected in more recent years have, by the owner's yearlong industry and perseverance, acquired a standard comparable to that of the old houses which were built and fitted up in the days of the shipwrecks. In these, the best, houses we find complete ceilings, wainscots, and partitions, nicely put up from good material and painted in different colours or papered with real wall-paper.

The furniture usually corresponds to the other outfit. The best houses are quite well equipped with two or more beds or bunks, a home-made wooden sofa which is also used as a sleeping place, two or three tables, a few chairs, and a couple of chests wherein clothes are stowed away. The latter are also used to sit on (see fig. 28). Nearly every house has a cupboard in the corner, between the back wall and the gable, where plates, cups, and other household utensils are kept. Nearly always

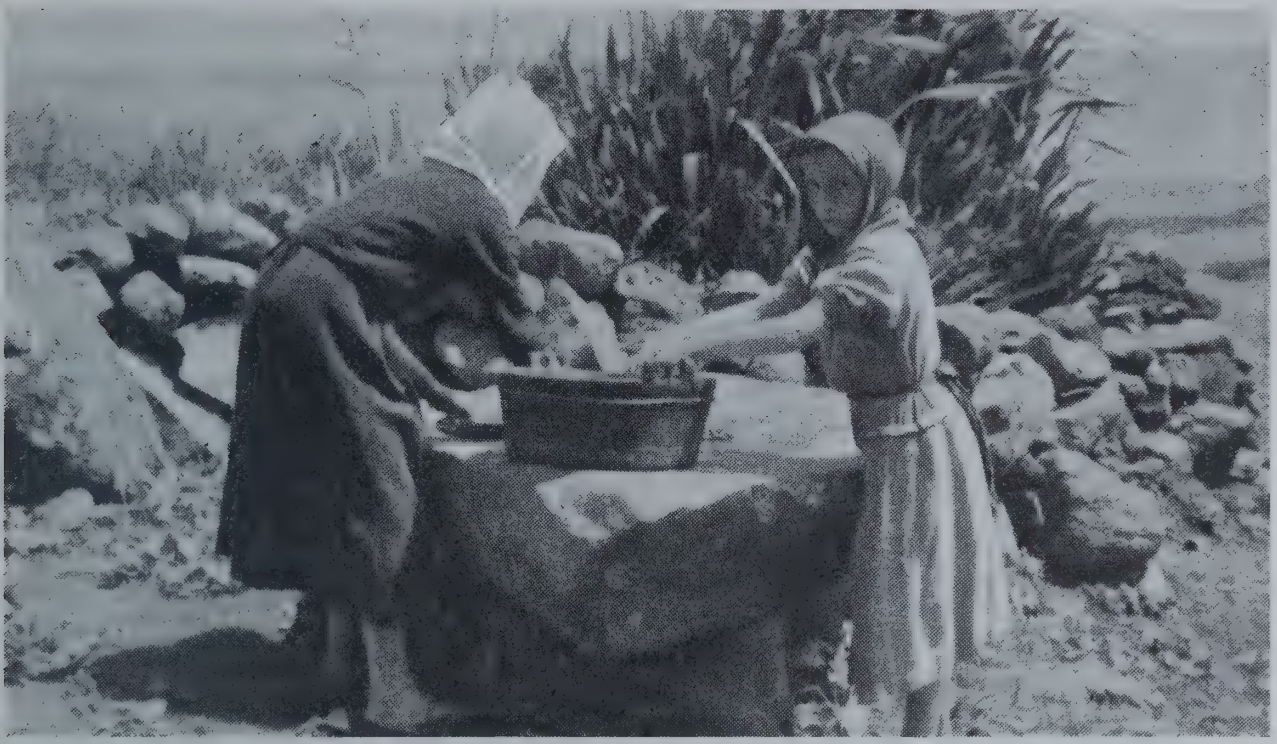

Fig. 45. Washing-stone in the open.

there is also a "mantelpiece" on the wall above the fireplace. Occasionally there is even a small book-shelf on the wall with a few books in it. Shelves and window-posts are decorated with paper, usually old newspapers, nicely cut in tongues, and on the walls are found coloured pictures from illustrated magazines etc., and now and then a few framed photographs sent by friends in England.

Other houses are very poorly furnished, with only a bunk or two in the bed-room, a table, a wooden bench of the simplest design, and one or two margarine boxes to sit on. In these houses the children sometimes sleep on the floor.

There is one house in Tristan which has a cellar under a part of it. This is one of the oldest houses on the island. Otherwise, potatoes and other victuals etc. are kept in small huts which have been built near every house, each household having its own hut. These huts are only roughly put up and are always built of blue-stone. They are mostly placed with one end against the gable wall of the dwelling house (fig. 38). But sometimes they have been built up separately near the house, and then mostly in a down-hill direction, at right angles to the length direction of the houses (fig. 41). In the first case the door is placed as in the houses, in the northern side-wall. In the latter case, however, it is usually in the lower end, thus, even then, to the north. In these huts, too, there is mostly a hipped and rounded roof in the lower end (fig. 41). The huts have no windows. They are thatched like the houses, but usually with flax, which is not so durable as the tussock. The thatch, and sometimes the whole roof construction, is usually renewed every year, namely just before the digging up of the potatoes.

In addition to these huts, two houses have even a "wash-house", a hut roughly built up like the potato hut of blue-stone, but placed so that one of the small artificial brooks runs through it. The lower gable end is quite open. Inside there is just a big flat stone placed on top of ohter stones, thus forming a kind of low table. On this stone the women wash their clothes. Other house-owners have built up similar washing places in the open air. These are frequently shared by several adjacent houses.

In more recent years a closet has been built to each house, usually at the back of the house or somewhere in the tussock garden, a rough shelter with three walls and a roof, just big enough for its purpose.

Excursions are often made to certain places "on the other side of the island", such as Sandy Point, Stony Beach, and Seal Bay, as well as to the other islands Inaccessible and Nightingale, and on these excursions the islanders frequently have to spend the night away from the houses. In such cases the islanders seek shelter in caves where such are present. There is one at Sandy Point, and in Seal Bay there are quite a number of good caves with the biggest of them all, The Archway Cave, which is 36 feet wide, 30 feet high, and 40 feet deep. In other places, which are but occasionally visited and just for one night, an overhanging piece of rock may serve as a primitive shelter, occasionally with a low stone wall in front of it against the wind. Sometimes the islanders just turn their boats bottom upwards and sleep under them, and when occasionally they spend the night on the hill, they build up small provisional "huts" or shelters of tree ferns and bushes.

In Stony Beach, however, there are three permanent huts. This is a place that the islanders visit more regularly, and there are no good caves or other natural shelters. Another hut has been set up near the potato patches, but as the islanders never spend the night out there — only a couple of miles' walk from the settlement — it is only used occasionally as a shelter against sudden rain squalls. Finally, there is a hut on Inaccessible which was erected a few years ago at the request of the present missionary in connection with an attempt to colonize that island. The attempt was not very successful, as we shall hear later, and the hut has been left to fall into disrepair. These huts are roughly constructed of the simplest building materials, and usually have no windows, only a door in one of the side walls. There is a fireplace in one gable, also

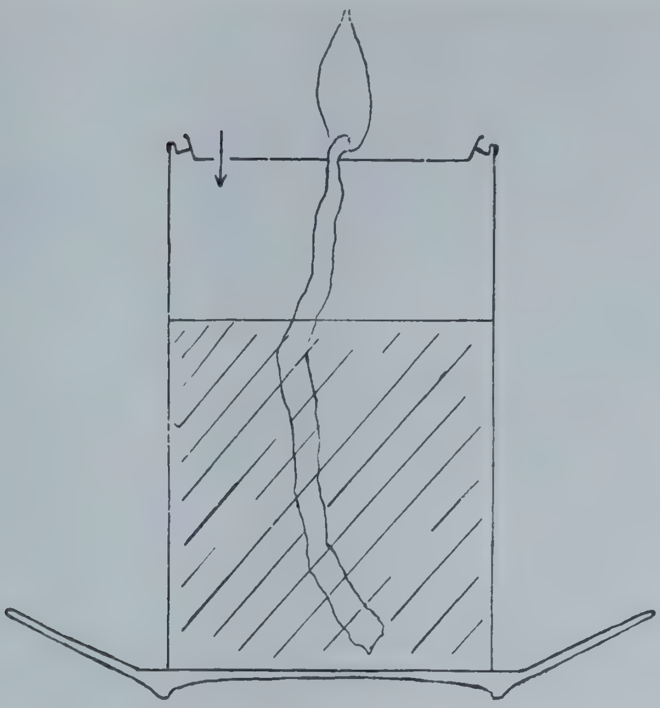

Fig. 46. Sketch of a home-made lamp (section).

as a rule made of blue-stone. Otherwise there is no outfit, no ceiling, no wainscots, and no furniture. The islanders just sleep on the dirt-floor where they make their "beds" of grass and ferns.

Fire is usually obtained by means of ordinary imported safety matches. They are always used very sparingly, the men even lighting their pipes with a live coal (a "brand") from the fire if a such is at hand. When they have no matches the islanders make fire by means of a home-made tinderbox, a small metal box — or sometimes only a piece of iron pipe — stuffed with charred rags which are lit with flint and steel. The steel is usually the broken blade of a knife, and flint is found at Blenden Hall, Inaccessible (supposed to be remnants of the cargo of the East-Indiaman *Blenden Hall* which was wrecked there in 1821). — More as a curiosity we may mention a kind of home-made matches, the making of which is now only occasionally practised by Old Sam Swain, the oldest inhabitant of the island. These matches simply consist of small sticks of wood, one end of which has been dipped into melted sulphur. Sulphur is found in small quantities near Pigbite on the north-western plain. The matches are lit by putting the sulphured end to the charring rags of a tinderbox.

Lighting is mostly procured from a home-made lamp burning penguin oil. This lamp is made of an empty tin, preferably one of the small ones with a press-lid used for baking powder etc. The box is filled with oil, two holes are made in the lid, one in the centre and one near the edge, and a wick — which usually consists of a strip of cotton —

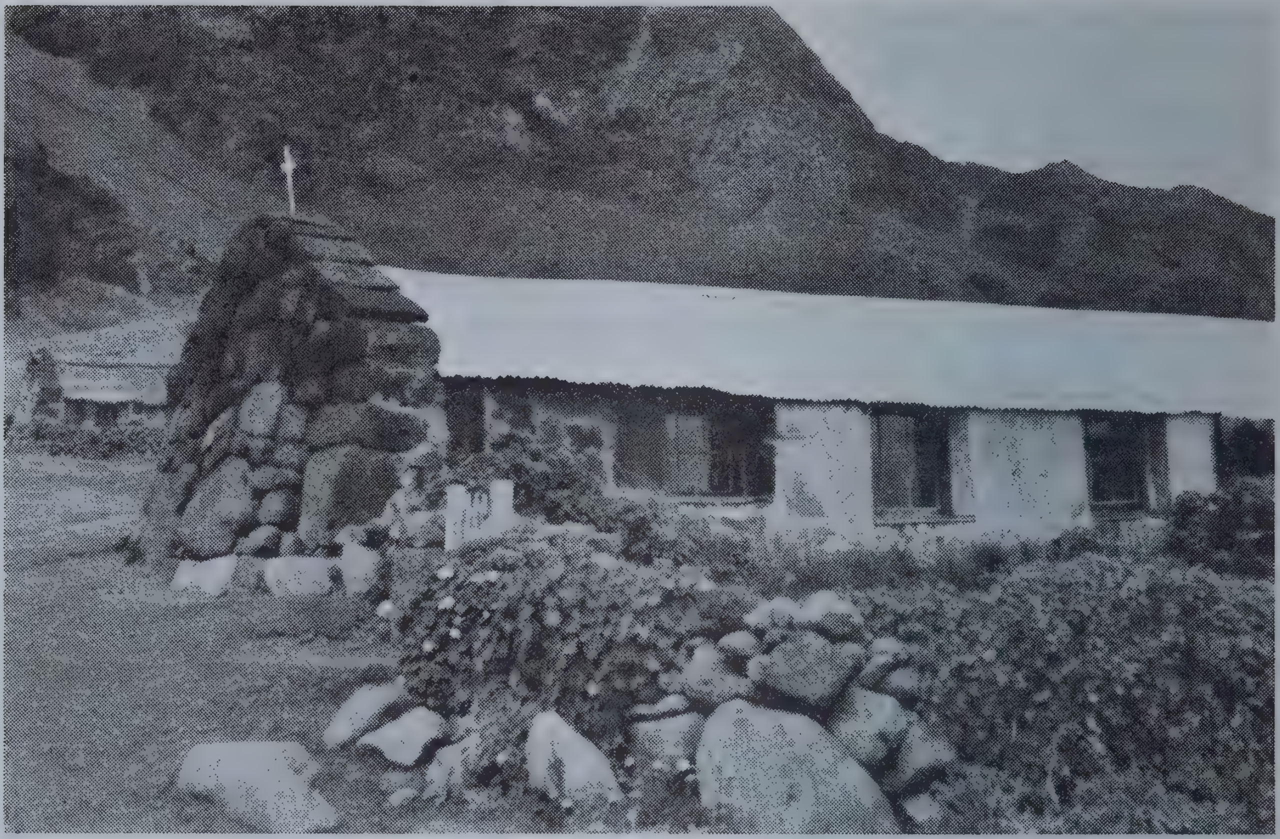

Fig. 47. The church (front).

is put through the hole in the centre. The other hole is to let in the air as the oil is consumed. The whole thing is usually placed on a saucer for the waste oil. This lamp, of course, gives a very feeble light and is apt to smoke. The wick is quickly burnt down and must frequently be drawn up with a needle. — Ordinary candles are used on special occasions, and there are even two ordinary oil-lamps on the island, which are used to light the dancing hall during a dance and, at other times, are left in the missionary's charge.

The best equipped house on the island is undoubtedly the church. This was erected in the years 1922/23 and is a very long, low building partly dug into the ground according to the building custom of more recent years. The masonry work is quite simple, but must probably be regarded as the best that could be performed at that time. Mortar has been used only in the front wall, which is also partly plastered. The roofing, as previously mentioned, is corrugated iron which has been painted white. The east gable is decorated with a small cross, and on the other gable end there hangs a tiny bell, which is said to have come from a sailing vessel that was wrecked on the island, and which has served as a church bell long before the building was erected, when church services were held in the largest dwelling house on the island. The roof construction of the church is a little different from that of the

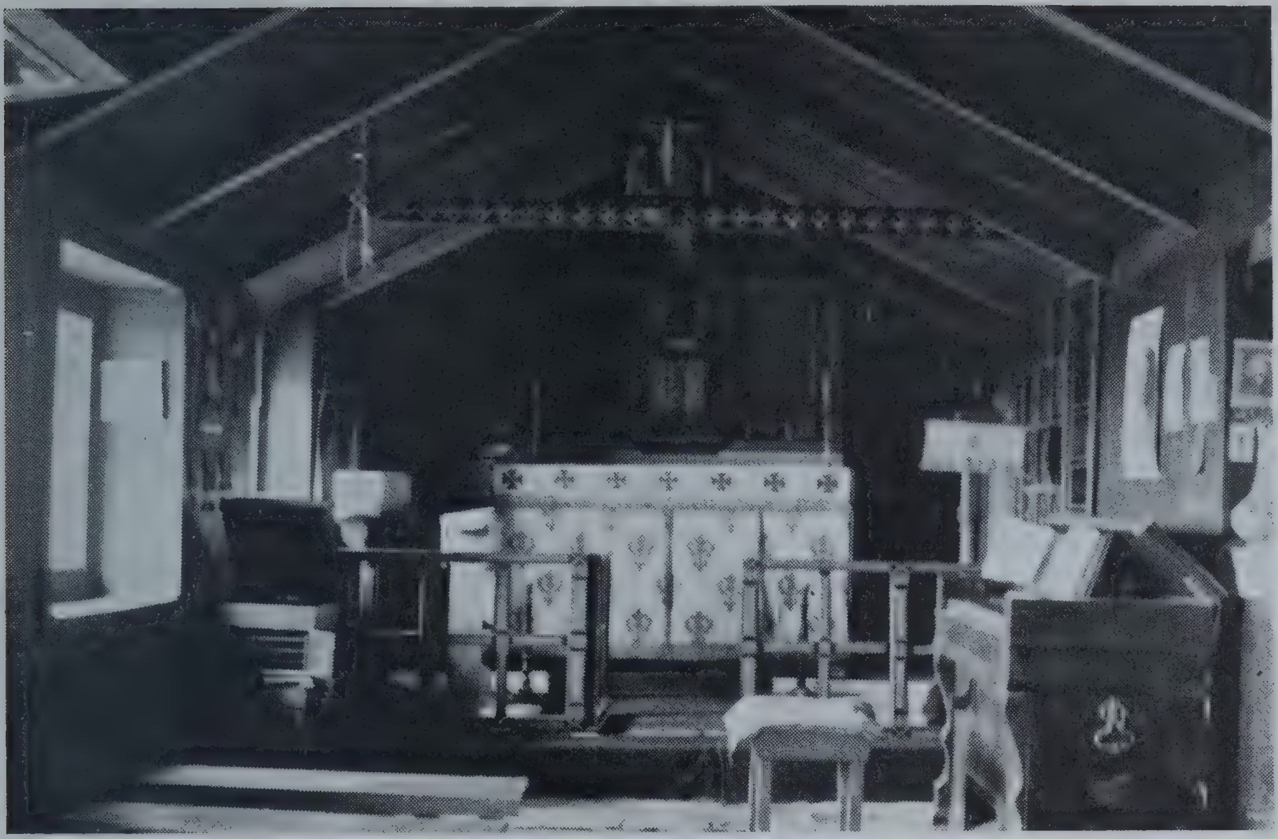

Fig. 48. The church interior.

ordinary houses. The principals are solid streight fourquarters. There are no cross-sticks or rafters, and a lining has been put on top of the principals so that the corrugated iron is not seen from inside although there is no ceiling. In other respects, too, the church is well equipped with wood which has obviously been procured through the S. P. G. Floor and wainscots are all very good, roof and walls are nicely painted and adorned with decorated panel-work. The high altar is well equipped with pretty altar frontals in the prescribed colours, chalice, etc. The communion-rails are partly carved and decoratively painted. There is a pretty stone font which was brought by The Rev. Dodgson in 1880, and a harmonium which is a present from Her Majesty Queen Mary. A niche in the south wall serves as a kind of altar to the Virgin Mary, with a reproduction of Rafael's Sistine Madonna. Five memorial brasses have been hung up in the church, in memory of the two missionaries Dodgson (1880—84 and 1886—89) and Rogers (1922—25), of Douglas Montagu Gane, Tristan's great patron in London (died 1935), of Andrea Repetto (Lay Reader 1909—11), and of Sylvia Mary Green, a girl of 10 who died by an accident in 1927. All these brasses are presents to the island from friends in England. The western gable wall is decorated with pictures from the mission field, of the usual romantic nature. — On the whole, of course, the interior of the church is more the work of the missionaries than of the Tristan islanders, the latter having worked according to instructions. All carvings and much of the painting are supposed to be entirely the work of one of the missionaries.

Farming.

The Tristan islanders like to be considered "farmers"; this is the occupation by which they have been entered in the registers that have been kept by missionaries. And so far this description is quite correct, as farming is by far the most important livelihood in Tristan. All the more significant of the general condition of Tristan culture is the fact that farming on this island is extremely primitive, both with regard to means and methods, and, in consequence of this, agriculture as well as cattle breeding does not yield by far as much as would be possible by simple improvements of methods. This fact, it is true, is partly due to the want of the necessary tools and other means — which is, again, a consequence of the strong economic isolation of the island. But another factor, which is almost as important as the first mentioned, is the conservative character of the islanders and their lack of initiative. We shall presently see more than one example of this character trait. Besides, of course, there are very difficult climatic conditions for farming, and these must bear their part of the blame that this trade is so little developed in Tristan da Cunha.

The area of easily accessible cultivable land is not very large in Tristan. It is mainly confined to the northwestern plain. The soil is here very good, consisting of fine black mould mixed with sand, though it must first be cleared of loose stones. Especially in the southern part of the plain it is quite deep (see fig. 49) and very well suited for cultivation. In the other plains, too, especially in Stony Beach and Seal Bay, the soil seems to be good. But the approach to these places is more difficult and may be blocked for long times by unfavourable weather conditions. Still more difficult is the approach to The Base, where especially in the eastern part there are large areas with deep and fertile humus. Only a small part of the north western plain, therefore, is really cultivated, and including the tussock gardens round the houses, there are not more than about 30 acres of land under cultivation on the island. By far the greater part of the plain, as well as the plains and slopes in other parts of the island, are left open for pasturages for cattle, sheep, and donkeys, while the wide area of land on The Base is left entirely to nature, and is densely covered with wood, tree ferns, and grass.

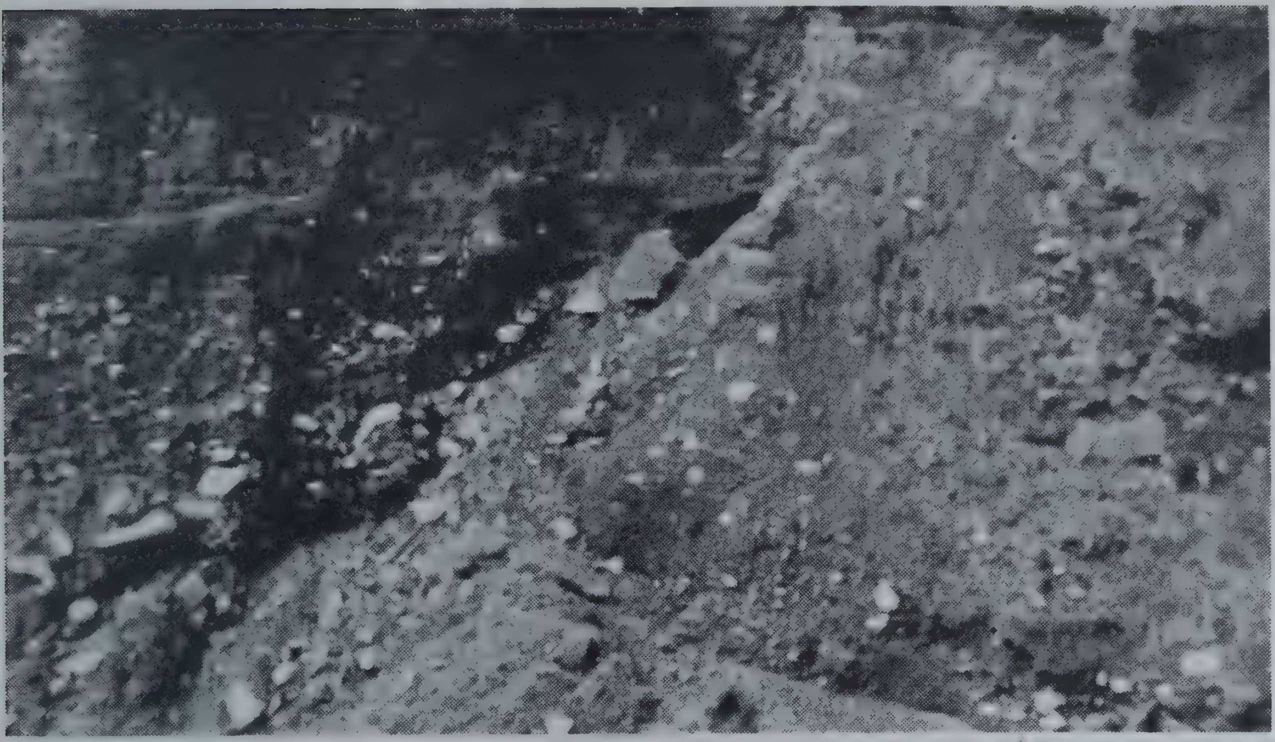

Fig. 49. The perpendicular side of a gulch near The Patches, showing nature of the ground.

The most important utility plant grown in Tristan is the potato plant. Potatoes form the all important basis of the Tristan diet, and more than ¾ of the cultivated land is used for this herb. Other vegetables, like pumpkins, cabbage, turnips, etc., are grown only to a small extent and do not play any considerable part in the diet.

Corn is not grown. The islanders say they cannot grow corn as the rats eat up the shoots as soon as they come up. I had no chance of checking this statement. May be it was just an excuse whereby the islanders deceive both themselves and others. For, as a matter of fact, corn has never been grown in Tristan to any considerable extent. Taylor, in his account from 1856, states that the crops "consist almost entirely of potatoes, — — —. A little wheat is grown, but not much, the return not being very plentiful, owing partly to the want of good seed" (p. 85). In an account from 1867 (Milner and Brierly, 1869) it is said that wheat was only grown enough to keep up the seed. It should also be noted that both these accounts are from a time before rats came to the island. It seems that the islanders preferred to buy flour from passing ships, — and this is probably what they still want to do, in spite of the fact that nowadays ships very seldom pass the island. In any case, corn has not been grown for generations, and when the islanders refuse to start this trade (though they have often been advised to do so), it is possibly in the first place a manifestation of their conservative character. The possibility should be admitted, however, that this "practice of omission" may be based on some bad experience with regard to the raising of corn made by former generations (cp. Taylor's remark on the poor result of the growth of wheat).

Another manifestation of the islanders' conservative character is the fact that in the Tristan agriculture a so simple means of increasing the yields as the rotation of crops is practised only to an inconsiderable extent. And this is not due to lack of knowledge of the effectiveness of this procedure. The islanders are well aware of the advantage that this would be. But — with one or two exceptions — no one ever seems to think of growing vegetables where his father and grandfather used to have potatoes, or *vice versa*. Neither is there any regular fallowing of the ground. A patch is grown with the same kind of crop year after year, and when it is completely exhausted, it is simply left to grow with grass and other weed, and many years may pass before it is again dealt with at all.

Potatoes are grown in hundreds of small square formed patches, enclosed by stone walls in the southern part of the north-western plain. To the south of The Hillpiece are a number of small hills, and between these hills there is some protection against the wind. Moreover, the soil is here particularly good and well fit for cultivation. The 3 feet high stone walls around the patches give a further protection against the wind. Besides, of course, they serve as fences against the cattle.

The plots are quite small, usually one or two baskets,[1] seldom bigger. They are placed close together in groups and without any system or order, new patches having been placed where there happened to be a piece of good land, and preferably close up to other patches, whereby obviously the effectiveness of the stone walls as break-winds was increased, while the owner had merely to build up two or three walls instead of four. Thus one man may have up to 20 plots spread among others, and as there are no foot-paths between the patches and the walls have no openings, he sometimes has to climb several walls and cross several plots before he can reach his own patches if they are placed in the middle of the group. But though there are nearly 500 patches, every man on the island knows to whom the different patches belong and can give a sure designation of each patch by means of the owner's name, the size of the patch, and its situation in relation to the surroundings. It is with good reason that this district is particularly rich on topo-

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[1] A basket of land is as much land as is required for the planting of one bushel of seed potatoes (= c. 100 m²).

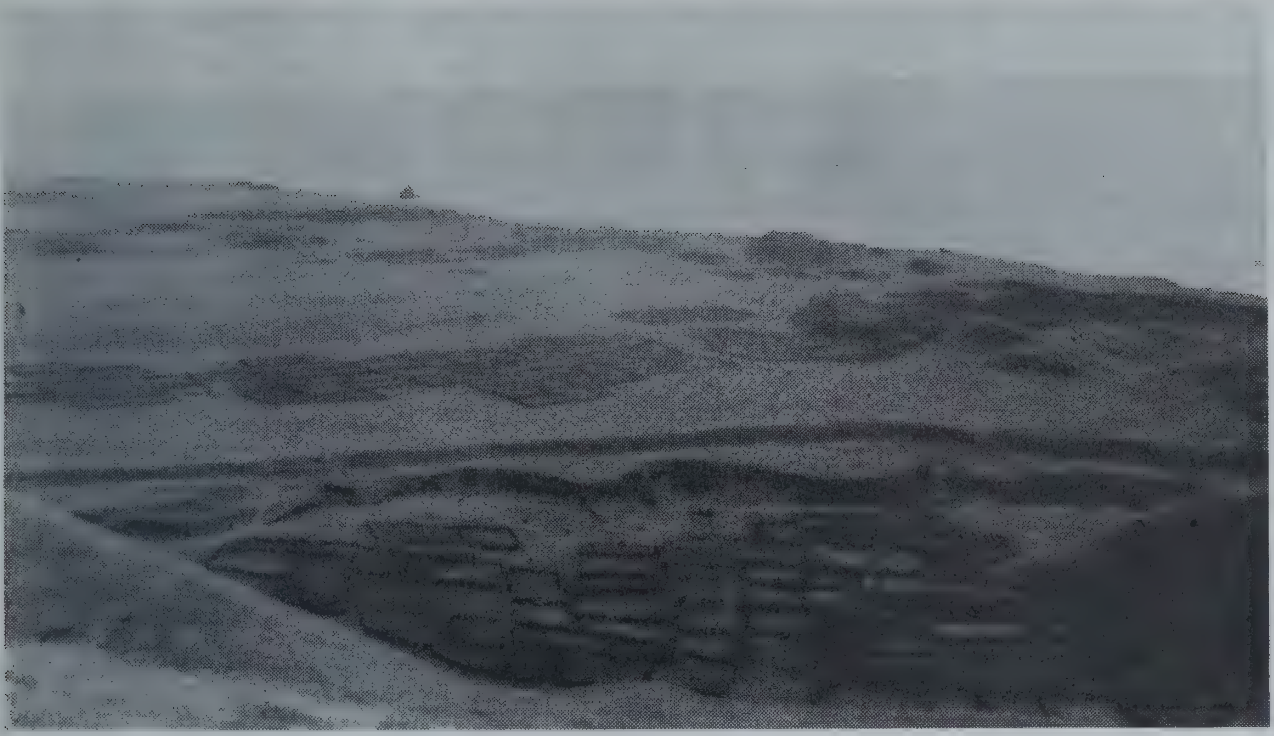

Fig. 50. View of some of the potato patches.

graphical names, every little hill and every depression of the ground having its own denomination.

The ground is usually dug by means of spades. There are, however, one or two ploughs on the islands, and these are used in some cases, drawn by a pair of bullocks. This work is done in June and July. New patches are usually turned for the first time in February or March — sometimes before they have been walled in — and then for the second time together with the other patches.

Potatoes are planted in August and the first part of September. Most islanders, however, plant one or two patches already in July in order to get ripe potatoes for Christmas when new potatoes play a great part in the fare. The potatoes are planted in regular straight rows, usually with a distance of 6 inches between each potato. The distance between the rows is about 1 foot.

The ground is manured simultaneously with the planting of the seed. The manure most commonly used is a mixture of kelp, human excreta, grass, and sheep-dung. The kelp is mostly taken from Little Beach, preferably after a heavy northerly swell when great masses of it are thrown up upon the beach, and put into small walled-in bins near the houses, where it is allowed to rot together with the contents of the closet buckets. This mixture is said to give a very good manure. The sheep-dung is obtained by driving the sheep into small enclosures, the so-called kraals, where they are penned in for the night. The bottom of the kraal is covered with grass which is fetched from the hill-side, and the excreta are mixed well into it through the trampling of the sheep. Kelp may also be put in the kraals, but then always with a layer of grass on top lest the salt should make the sheep's feet sore. When the manure is considered ready, it is taken out to the patches and placed in heaps for later use. Sometimes the kelp is taken from one of the beaches near the potato patches and spread directly on the ground. Cattle-dung is collected on the ground and laid in heaps, which are marked. Then it is taken to the patches and placed in larger heaps together with grass for the winter. But the best manure is the guano, which is gathered in the penguin rookeries and placed under a rock or other natural shelter for drying before it is taken home in bags. This manure, however, is little used. On the main island there are only a few and small rookeries left, and in these open rookeries the guano is for the greater part spoilt by the heavy rains. Moreover, as the guano should preferably have a certain degree of dryness already at the time when it is gathered, there is seldom an opportunity of collecting any considerable quantity of it in this rainy climate. On the other islands, especially on Nightingale, there are immense numbers of birds, and large quantities of guano might be collected there. But for unknown reasons the islanders never fetch guano from there, asserting it is too wet and too strong.

The manure is used sparingly. It is mostly just put on top of the row after the potatoes have been sown. In less frequent cases there is also placed some manure in the bottom of the row before the seed is planted. In case guano is used, only a lump of it is placed on top of each seed potato.

After the seed has been planted the patches are left almost entirely to nature for three or four months until digging. The plants are practically never earthed up. Weeding is done quite deficiently — if it is done at all — and the patches are soon overgrown with all sorts of weeds that come up together with the potatoes. When digging is done, the patches are "cleaned", *i. e.* the weed is gathered together with the potato arms and burnt.

A most serious danger to the potato crop is represented by the grubs. These are the large black larvas of a night-butterfly. They occur in great masses about Christmas time and after, and seem to thrive best on the potato plants where in bad years they entirely eat off the leaves and thus kill the plants. The year 1937/38 was particularly bad on account of grubs, and the crop that year was considerably diminished on account of these insects. Some of the more industrious people went out to the patches nearly every day before Christmas, and mostly spent

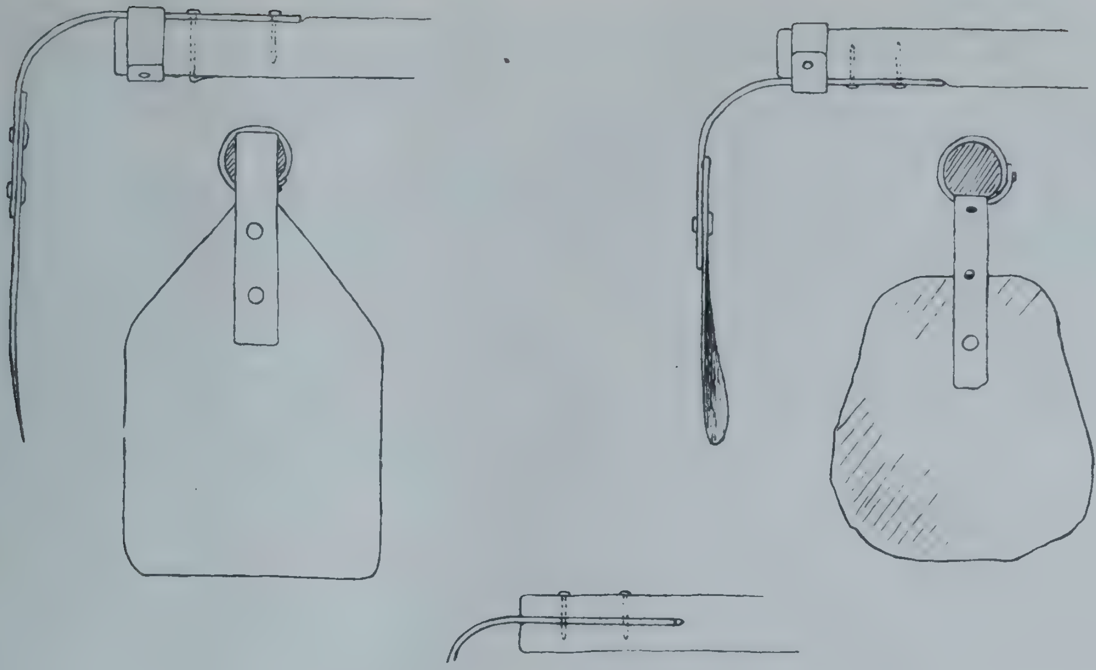

Fig. 51. Home-made hoes.

all the day there from early in the morning till late in the evening picking off the larvas with their hands and killing them. This work, of course, is very tiresome, and as the larvas contain a sharp stuff, it makes the fingers sore. But it obviously saved much of the crop. Others just left the patches to the grubs and consequently had a very poor crop that year, only two or three fold and even less. One of the reasons why this plague has gained so much hold is obviously that there are no ichneumon flies on the island, nor any insectivorous birds after the starchy has been almost completely exterminated, probably by cats and rats.

The early potatoes, which are planted in July, are dug in the last part of December. Otherwise February is the time for digging. This work demands all the labour that can be secured, and men, women, and children partake in it. Consequently hoes are needed in comparatively large numbers, and to meet this want the islanders have had to learn the art of making hoes themselves. These are of the simplest design. The blade is made of some old iron plate, an empty oil-drum or a piece of corrugated iron which is hammered out and more or less roughly cut to the desired shape and size by means of chisel and hammer. It is connected with the handle by means of a strong piece of hoop-iron which is bent at right angle and fastened in the one end to the blade by means of one or two rivets, and at the other end to the handle by means of nails. The junction between the hoop-iron and the handle is strengthened by means of another piece of hoop-iron fastened round the lower end of the handle (see fig. 51). The handle is made of the tough and strong wood of the island tree.

When digging, the potatoes are laid in the sun to dry. Digging, therefore, should preferably be done on a sunny day. After having been dried, they are sorted into large and fair-sized eating potatoes, smaller seed potatoes, and small potatoes, the latter forming a reserve when he ordinary eating potatoes are gone. The crop of each patch is roughly measured in baskets or boxes, each box taking ½ bushel. Finally the potatoes are taken home and placed in bins in the huts for the winter. The bins are lined with grass.

The production of potatoes is very small, considering that this root forms the basis of the diet.[1] The islanders reckon 20—25 bushels of potatoes per individual as the normal yearly consumption, which would make necessary a production of 4000—5000 bushels for the whole population. In 1937, which was said to be just about a mean year with regard to crops, the actual total production of eating potatoes was 3661 bushels, and in 1938, which was a bad year on account of the grubs, it was only 1844 bushels. In other words, the islanders do not raise more potatoes than barely enough to give a sufficient return in good years. For the bad and average years they trust to fish. As mentioned above, there is only a small area of land under cultivation, and with the primitive agricultural methods used in Tristan it could not be expected either that the yield of the land should be very large. According to the statements given by the islanders for the year 1937, the return in a mean year would not exceed 5 or 6 fold as an average, and in the bad year 1938 the average return was only 3½ fold, including the next year's seed. And the more suggestive are these figures in relation to the good quality of the soil which is evident from the fact that a new patch usually gives 20 fold the first year. However, there are great variations both in the number of baskets kept under cultivation by each family and in the relative return of the land according to the zeal and industry of the individual owner. Thus there are a few people who always raise enough potatoes to keep them through the winter even in a bad year, most people just raise enough to get through a good year, whilst others always run short of potatoes. Particularly significant are the great variations in the relative return of the land. While some people never get more than 3 or 4 fold in an average year, and in a bad year are reduced to less than 2 fold, the best prepared patches give an average return of 9—10 fold and even in a bad year may yield as much as 6 or 7 fold. This shows that with a better preparation of the ground, and with simple improvements of the methods,

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[1] On the diet of the Tristan islanders as well as on the preparation of food see Henriksen and Oeding, (1940, p. 100—125).

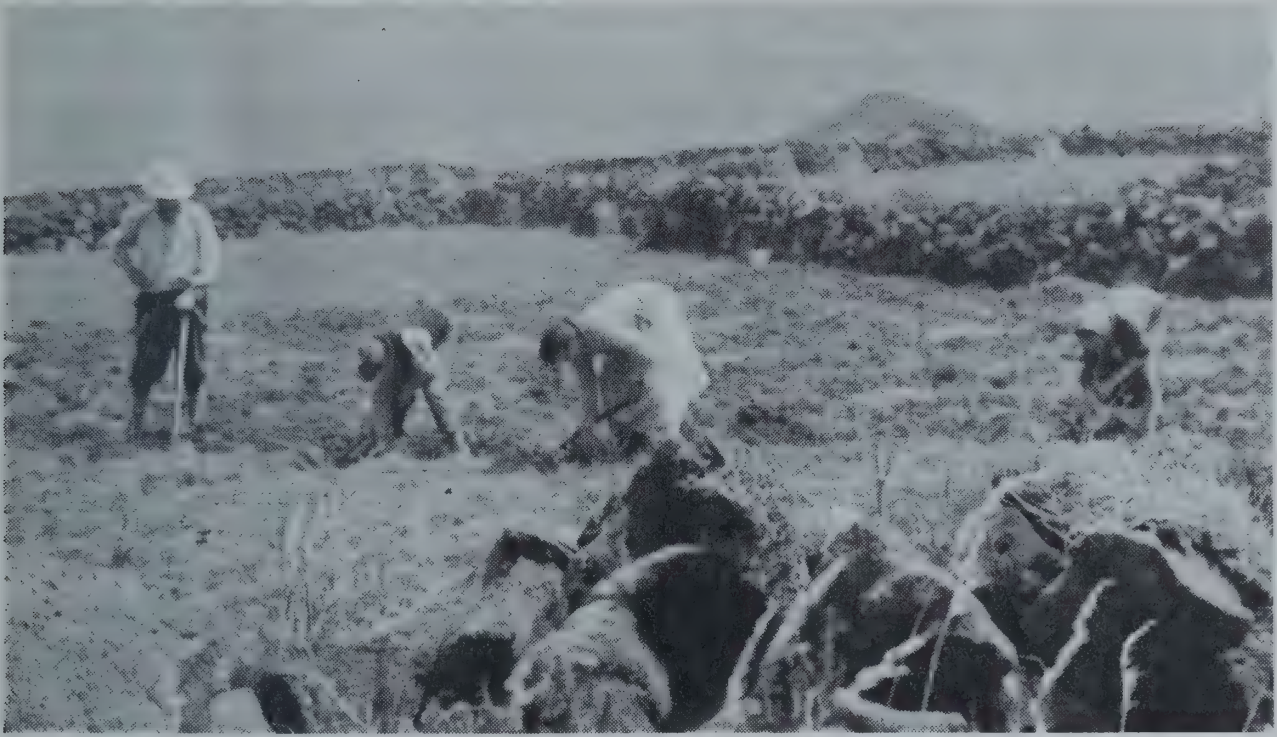

Fig. 52. In the digging.

the average return could easily be increased to 8 or 9 fold, which would be sufficient to produce an abundance of potatoes for the whole population on the area of land already under cultivation.

Other vegetables than potatoes are grown in small quantities in the gardens near the houses. Only in rare cases are they grown in one of the potato patches for a change. Most families have a vegetable garden, but there are many of the poorer families who have none. The most important kind of vegetable grown on the island is the pumpkin. Many "gardens" just consist of one or two plants of this herb. The fruit may grow quite large, weighing up to 15 kg. The other vegetables grown are turnips, carrots, beetroots, drum-heads, cauliflower, collards, lettuce, onion, leeks, chives, parsley, rooted parsley, and vegetable-marrow. None of them are grown in any considerable quantities, but turnips, carrots, drum-heads, and cauliflower are the most common. Tomatoes are grown in one or two gardens, but usually have to be picked in a green state and ripened in the window-sills.

On account of the small quantity of vegetables grown, there is never anything left to be kept for the winter. The vegetables are usually left in or on the ground and taken in according to requirements, and in the course of the time from Christmas to March the island's entire produce of vegetables is usually consumed. Only onions may be gathered in small quantities and kept for some time in the huts.

The climatic conditions in Tristan are very unfavourable for gardening, and this is the main reason why horticulture is so little developed. "The climate alone", as Mrs. Rogers says, "would depress the most enthusiastic gardener. A flourishing garden to-night may be a desolate ruin by to-morrow at day-light from wind and rain" (p. 100). The islanders try to protect their gardens against the wind by planting hedges of flax around them. Nevertheless, the strong winds preclude any gardening on a large scale. Moreover, for the same reason the islanders cannot raise the seed themselves but have to depend on what they may get from outside, mostly from friends in England. Lately the mail has regularly brought different kinds of vegetable seed, but the islanders complain that this seed is too old on account of the long storage during its transit to the island. However this may be, it is a fact that the best vegetable gardens are owned by those few people who still have connection with related emigrant islanders in Cape Town, and can get their seed from there.

The gardens round the houses are chiefly used for the cultivation of tussock grass and flax. These, as mentioned, are grown for thatching purposes. Besides, the flax is used as a substitute for string: the leaves are split in the direction of their length into long narrow strips, which are amazingly strong and may replace ordinary string for any purpose. The tussock as well as the flax belong to the original vegetation of this group of islands, and in the old days the entire plain as well as the other plains were covered with these plants. Now they are very scarce on the main island and must be cultivated in gardens fenced in by stone walls as a protection against cattle. Altogether 7 or 8 acres of land are fenced in for this purpose. The cultivation is very simple — if we can speak of "cultivation" at all. There is no manuring, and no spading of the ground. The grass has been planted, that is all. Otherwise it is cut whenever material for a new thatch is required. It may usually be cut every three years.

Efforts have been made to introduce different kinds of utility plants on the island, for the greater part without success. Apple trees, however, will grow, and are planted in sheltered places in different parts of the island, particularly at Sandy Point and in Stonybeach Gulch where a considerable number may be found. These "orchards" are never taken care of in any way. The trees are never cut except when material is wanted for timber in a new boat or for the "bows" in a yoke. Nevertheless, they bear fruit of quite a good size and of no bad flavour.

The apples are harvested in March. They are not quite ripe by then, but they are purposely picked in a half green state lest the rats should get the best part of them. As a matter of fact, when the apples are ripe, rats not only eat the fallen fruit, but even climb the trees and attack the apples on the branch. But long before the actual harvesting, already from the first part of January, the islanders eat quite a lot of apples whenever they happen to have an errand to one of the places where orchards are found, and frequently also bring home a bagful of hard apples. These are grilled directly on the fire or, preferably, in hot ashes, or they are beaten ("hit") with a stick to make them soft. Thus particularly at Sandy Point, which is frequently visited by the islanders, the orchards are robbed of half their crop before the harvest, and of the few apple trees that have been planted near the houses there is no harvesting at all, for the fruit is picked and eaten long before it is ripe.

The apples are kept in tins on the loft or in the huts, and might, with a little careful handling, easily be kept for several months. However, the quantities produced are not large, and as the islanders are particularly fond of apples they do not care to economize them. Thus, in three or four weeks the whole stock is usually gone.

Other kinds of fruit introduced by the "old hands" do not thrive so well. Some grapes and a few peaches grow at Sandy Point, but hardly ripen, and in Plantation Gulch near Pigbite, on the north side of the island, inconsiderable quantities of grapes and strawberries have turned wild. Figs, too, were introduced some time in the early days, but nothing is left of them except a few stunted creeping bushes in the bottom of Little Sandy Gulch on the north side of The Hillpiece. These, of course, never bear any fruit.

To meet the want of wood material in Tristan different kinds of trees have been planted at intervals. But the only kind that has made any growth as yet, is a small bush-like kind of willow, very similar to our sallow. Near Sandy Point there are quite a number of these trees. Like the apple trees they yield material for boat-building, etc.

More recently a very optimistic scheme was developed by the resident missionary to colonize Inaccessible Island. This island is free from rats, and it was supposed that it would be possible to grow corn there. The missionary persuaded fourteen young men to go with him as "pioneers" to start the enterprise, sheep and pigs were taken over, besides a good supply of various stores, and a hut was erected on the north-western coast of the island, at a place called Salt Beach where there is a fairly good landing. A narrow strip of cultivable land is found here, part of which was cleared and planted with corn and potatoes. According to the reports 300 bushels of potatoes were planted, though this may be an exaggeration. However, the experiment turned out very unsuccessfully. The return was probably even less than the seed. According to statements by islanders the crop of potatoes was only 80 bushels. Nevertheless, the experiment was repeated the next year, but with a still poorer result. When the Norwegian expedition visited the place in March 1938, the cultivation field was completely overgrown with tussock, and the potatoes were not bigger than plums.

No less primitive than the agriculture is the cattle breeding in Tristan da Cunha. The domestic animals are left almost entirely to themselves — except when special yieldings are required from them. They are left in the open air day and night all the year round, and, with the exception of a few rough "coops" for the fowls and two or three pigsties, there has not even been built a shelter for them against the severe storms with rain and hail that so often occur in the winter. There is no stall-feeding. The animals must find their own food as best they can. Cultivated pasture-fields, of course, are absolutely non-existant, and till recently no attempts were made even to maintain the yielding power of the land through a somewhat rational utilization of the pastures. Cattle, sheep, donkeys, and in former years even pigs, have been left to feed on the same common, and there has been no voluntary limitation of the stock according to the limited area and the actual yielding power of the accessible pastures.

This simple form of cattle breeding, of course, is extremely wasteful, but would certainly suffice under better climatic and environmental conditions. Equally simple methods are frequently found among cattle rearing tribes of primitive peoples. But in Tristan da Cunha, with its unfavourable climatic conditions and its very limited grazing grounds, these primitive methods could only remain profitable as long as the number of animals was kept below a very low maximum. As soon as this limit was exceeded, it could only lead to a gradual exhaustion of the pastures, which in turn meant an increasing reduction not only of the yields of the flock, but also of the yielding power of the land, so that finally an enforced strong reduction of the stock became the necessary result.

Such exhaustion has most severely befallen the north-western plain. Quite naturally this plain, being the largest area of serviceable land on the island, was the first part of it to be utilized for grazing grounds. And as the settlement is situated on this plain, it still forms the main grazing ground for all kinds of domestic animals. A large part was for this purpose cleared of its original vegetation by the British garrison and the first settlers, and new plots were cleared as new settlers arrived. This work was done in the simplest possible manner, by setting fire to the dense vegetation of phylica tree and tussock grass, and a few topographical names, such as Burnt Hill and Burntwood, still remind us of this process. About 1850 it sems that the greater part of the area had been cleared. It is not known how many head of cattle, sheep, etc. were kept on the island at that time. Probably fairly soon, however, the number must have exceeded the maximum of the area. In 1867 the stock was estimated at about 500 head of cattle and 200 sheep, besides donkeys and pigs (Milner and Brierly, 1869), and the stock was allowed to increase still further. In 1884 it is reported that there were from 600 to 700 head of cattle, and between 500 and 600 sheep on the island (Brooke), and in 1906 the total stock numbered 700 head of cattle,[1] 800 sheep, 30 donkeys, and 30 "or more" pigs (Barrow, 1910, p. 15 sq.). With the possible exception of a few head of cattle all these animals were kept on the north-western plain, on "this side" as the islanders call it.

It is worth noting that this increase in the stock is not conditioned by a corresponding growth of the population. It is true that during the time between 1867 and 1884 the population was increased from little more than 50 to more than 100. But after 1884 there was a strong reduction of the population due to numerous emigrations, and in 1906 there were only 72 persons on the island. On the contrary, we may rather state that the decrease of the population has caused an increase in the stock of cattle and sheep, for the cattle and also the sheep that were left behind by the emigrants, were not killed off, but were still regarded as the property of the original owners (Barrow, 1910, p. 65). Some of the emigrants also returned and again took their flocks and herds into possession. But most of them never returned, and thus a large part was for many years left to increase freely without any regulation of its stock, though of course its yields in the form of milk, wool, and working power were utilized, probably by some relative of the owner. This is the reason why in the old days there was such an abundance of milk. It was reported that Betty Cotton, an old woman who died in 1922, used to have 30 milch-cows. And even with regard to butter the island was probably almost self-supporting.

The year 1906, however, marked the climax in cattle breeding in Tristan da Cunha. It had already been evident for some years that the pastures on the north-western plain were overworked. Food began to get scarce in winter, and especially the cattle suffered much, obviously because sheep and donkeys gnawed the grass to the root. In bad winters there was a regular starvation, which even caused many losses. The winter of 1906 became a real catastrophe, for during that time no less than 400 head of cattle starved to death (Barrow, 1910, p. 15 sq.), and this heavy loss was never regained. So exhausted were the pastures that even this reduced stock was then beyond their yielding power. New losses occurred during the following years, and in 1926 the stock of cattle on "this side" was reduced to 198.[1] At the same time the number of pigs had been reduced from 30 "or more" in 1906, to 10 in 1926, and they were soon after killed off because it was realized that they spoiled the pastures. In 1937 the number of cattle on "this side" had been increased again to about 220, but that winter a new severe starvation reduced their number to 154.

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[1] It is uncertain whether this figure also includes the cattle kept on the south side of the island, which, however, at that time hardly numbered much more than 50.

This obvious reduction of the yielding power of the largest and most easily accessible pastures was the more serious as the population of the island during the same period increased to more than double. A more intense utilization of other pastures became indispensable. In the old days these pastures had been utilized only to a very small extent, but towards the end of the century a bull and a cow were placed on the Stony Beach plateau, and soon became a herd which now numbers about 100 head of cattle. These cattle have turned half wild. Likewise in Seal Bay there is now kept a herd of 55 head of cattle, and on the narrow slopes near Sandy Point 10 head of cattle and 2 sheep are feeding. 7 sheep and 1 pig are also kept on Inaccessible Island. A similar utilization of the small grassy slopes at Anchorstock is more difficult as there is no water. To get there from the north-western plain one must climb more than 300 m. Nevertheless a road was built by which the cattle could be driven past The Bluff. But a few years ago a stonefall took part of the road, and it has never been repaired.

These new pastures, however, are much too small to give compensation for the heavy losses that have occurred on the north-western plain, and unless the wide and rich highland pastures on The Base are brought into use, a further increase of the stock will only be possible through a radical improvement of methods.

The increase and decline of the stock in the course of the last 70 years will be seen from Table 5.

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[1] According to a note by the islander Bob Glass.

Table 5.

Number of domestic animals kept on Tristan at various times.

Year	1867[1]	1876[2]	1880[3]	1884[4]	1886[5]	1903[7]	1905[9]	1926[10]	1937[11]	1938
Cattle	500	700	500	6—700	500[6]	600	700	330	269[12]	322
Sheep	200	-	500	5—600	-	700	800	760	683[13]	780
Donkeys	-	-	-	-	-	100[8]	30	45	55	64
Pigs	-	-	"plenty"	-	-	-	30	10	6	5
Geese	-	-	"plenty"	-	-	-	-	250	195	260
Ducks	-	-	"plenty"	-	-	-	-	-	3	8
Fowls	-	-	"plenty"	-	-	-	-	300	511	498
Dogs	-	-	-	-	-	-	"a good many"	-	40	35
Cats	-	-	-	-	-	-	-	-	30	26

[1] Milner and Brierly, 1869. [2] Brine. [3] East. [4] Brooke [5] Bosanquet.

[6] "Besides milch cows and trained bullocks, there are about 500 cattle on the island. A good many others were washed away in a recent flood."

[7] Rabot, 1904.

[8] This high figure is probably due to an overestimation.

[9] Barrow, 1910, p. 15 sq. [10] Marshall. [11] Barlois.

[12] This figure probably does not include the "wild" cattle on Stony Beach.

[13] Possibly not including the "bluff flock".

Cattle, as mentioned, are kept on Stony Beach and at Seal Bay as well as at Sandy Point. But the bulk of the herd is still kept on the north-western plain, where alone the islanders can constantly attend to it and exploit it fully according to their methods. Naturally the cattle are those domestic animals which suffer most from the hard climate and the scarcity of food, whilst more frugal and hardy animals like sheep and donkeys may get on fairly well. In general, the cattle are small compared with European cattle, and are wery lean. Their resisting power seems to have lessened in the course of time, obviously on account of constant underfeeding. New-born calves are often lost from exposure to strong winds and rain, and quite frequently it happens, too, that cows "die calving". Calves are even attacked by flies which lay their eggs on the animals' backs or in other unclean places on their bodies; the destruction of the hide caused by the maggots will frequently kill the calf. The islanders usually dress the sick places with tar, but in many cases the treatment comes too late to save the animal.

All cattle on the island are privately owned except one pedigree Ayrshire bull which was brought to the island in 1937 by H. M. S. *Carlisle,* and which "belongs to the island". The number of cattle owned by one man may vary between 17½ and none. Co-ownership is very common, two or more up to eight persons owning a number of cattle

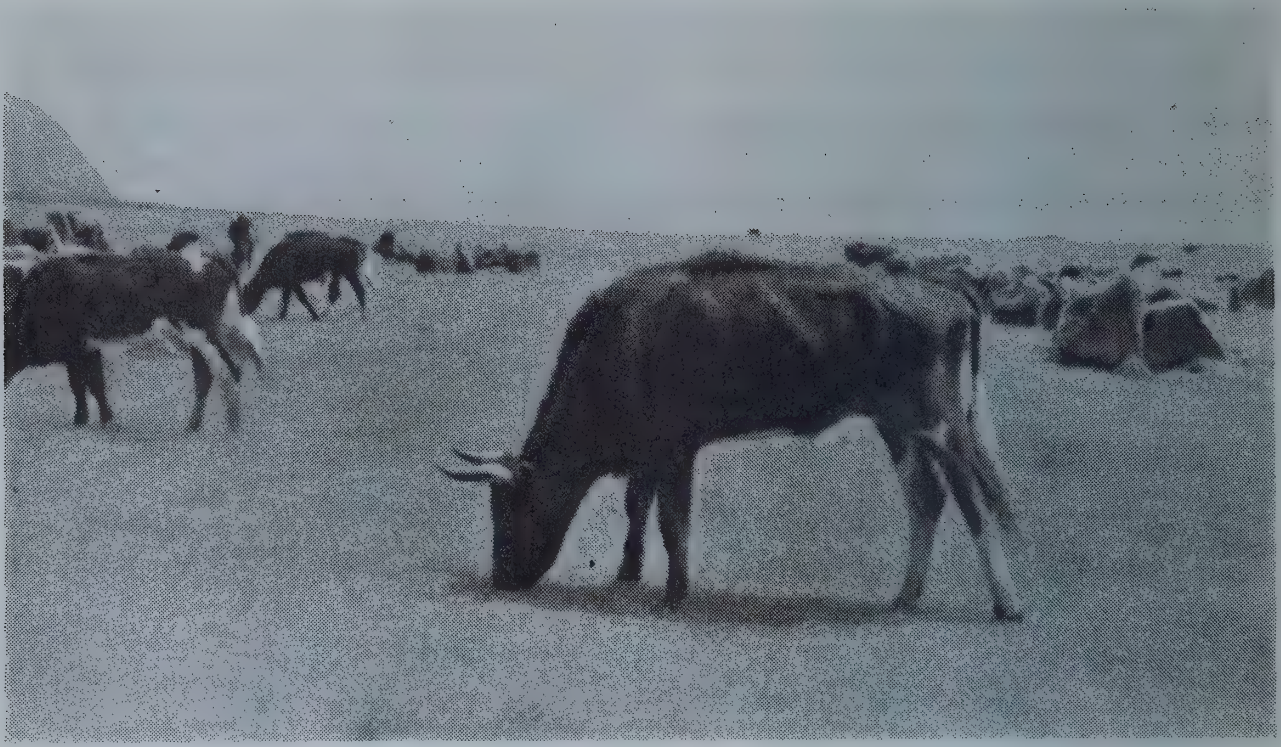

Fig. 53. Cattle near The Patches.

as joint property. Ear-marks are used, and the calves are marked shortly after they are born. The marking consists of various splits or cuts, and is usually done with an ordinary knife. The marking of the calves of the wild cattle in Stony Beach is done once a year, and the different owners take turns at doing the work. The calves have to be rounded up by means of dogs and driven into a small enclosure where the marking is performed. Hence the name Calfyard of the place where this is usually done.

The yields of the cattle are naturally very small. Milk, which once seems to have been an important product of the flock, is now very scarce. A full exploitation is here only possible with the cattle on "this side", as the other pastures are only visited occasionally. In 1938, however, there were only 67 milch-cows left on "this side", a small number when considering that the population is nearly 200, and they yield so little milk that the islanders obviously refuse to take the trouble of a regular milking. The calves are left with the cows and regularly suck until towards the next calving. Most islanders only milk when occasionally they wish to make a drink of tea or coffee — which is not had every day — and a small empty tin is usually enough to contain what they get out of each cow. Sometimes, however, the calf is parted from the cow and penned in during the night, whereby more milk is obtained in the morning, but seldom more than one or two pints.

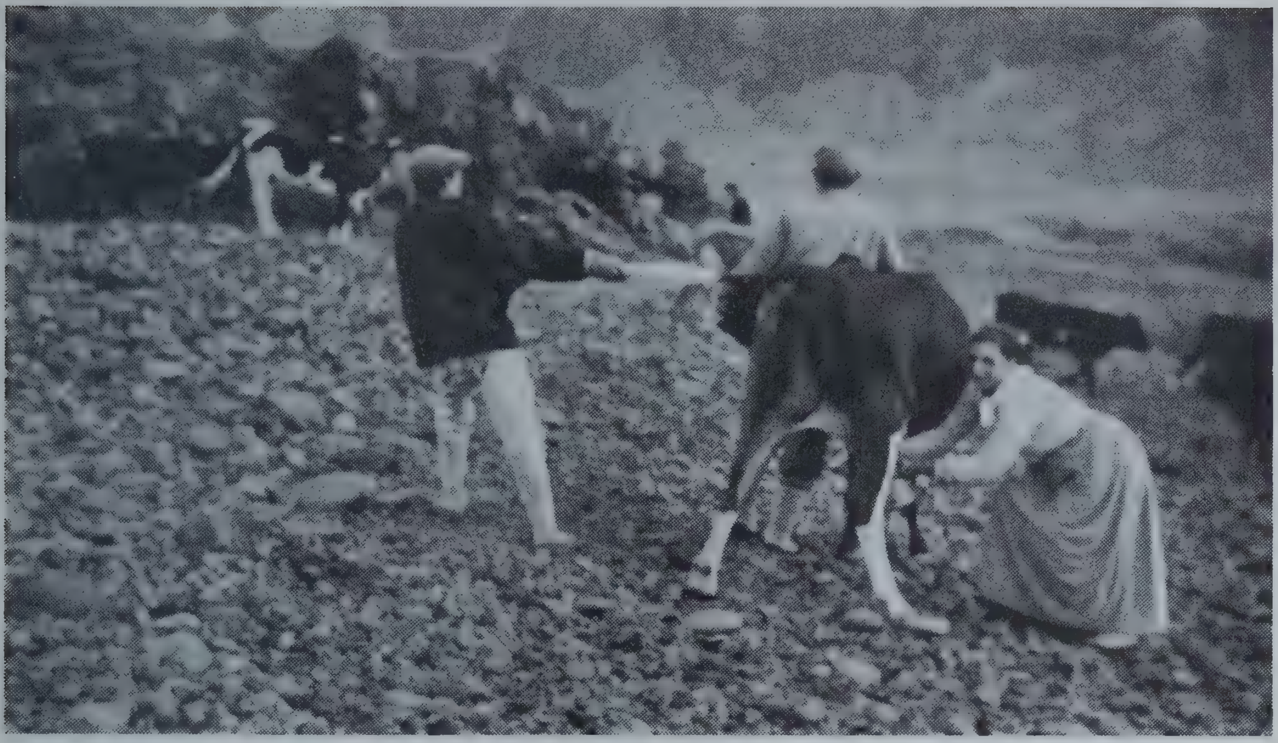

Fig. 54. Milking a cow in Seal Bay.

Still more irregular, of course, is the milking of the cows in Seal Bay. The milk that may be obtained there is never taken home to the houses, and consequently the cows are only milked whenever a party of islanders happen to spend the night in one of the caves that are found there. As there are thus always relatively many cows to be milked as compared with the number of consumers, here the islanders have for once the opportunity to drink as much milk as they like. This, of course, makes Seal Bay a very attractive place to the islanders. In the evening all the calves are "turned in", *i. e.* locked up in a small cave on the beach, and early in the morning the cows are milked. These cattle, of course, are little accustomed to milking or to human beings at all, and the milking of them may be rather difficult. Sometimes one or two men must hold on to horns and tail while the milking is done, and even then it is often interrupted by jumps and kicks from the cow. Neither do the cows yield all their milk except in the presence of their calves which, therefore, have to be let out before the milking can be finished. The yields of the cows are about the same, maybe a little more than on the north-western plain.

With the small quantities of milk available, dairying, of course, is only rudimentary. The milk is mostly used in tea or coffee or other hot drinks and is seldom drunk in a fresh state. Small quantities of butter are occasionally made by beating out boiled cream with a spoon. The making of cheese and other dairy products is unknown.

The islanders only occasionally kill their cattle. Meat is considered a luxury in Tristan, and is only eaten on special occasions. Moreover, mutton seems to be preferred to beef. The latter, however, forms an important food reserve in the winter when potatoes get scarce and fish may be difficult to obtain on account of bad weather.

Most of the beef is supplied from the wild cattle in Stony Beach. Only rarely the islanders kill a bullock or a cow on "this side". The Stony Beach cattle can only be killed with a rifle. There are only two usable rifles on the island, but the owners readily lend them out to those who need them. The hunting, however, is not quite simple. The "thing" to be killed must first be carefully chosen. In the first place, of course, it must belong to the hunters. The islanders also take care never to kill a cow with calf, or which is obviously heavy with calf. The "thing" having been chosen, however, it sometimes takes a whole day's chase before the hunters come within sure gunshot of it, without the danger of hitting the other cattle. These cattle, it appears, have acquired the habit of their really wild ancestors and cousins, that when chased they gather into a compact flock, and especially when an animal has been wounded, it will seek protection in the very centre of the flock. Usually the hunters will try by shouting and crying to cut off a minor part of the flock which may then be driven through some narrow passage where the animals are forced to run in single file. The hunting is by no means without danger. The cattle will attack a man if he tries to block their path, and when they have been chased for a long time, they are very likely to attack. Till now, however, there have been no accidents on this account, although there have been some narrow escapes.

As soon as the selected cow has been brought down, its throat is cut with an axe to let out the blood. This is also the method used when a tame cow or bullock is killed: the animal is felled with a blow in the head with the axe-head, and then its throat is cut.

In former days the cattle were of great economic importance to the islanders as beef was an important article of export. In those days great numbers of cattle were probably sold to passing clippers and whalers, as well as to St. Helena. To-day, of course, these things have totally changed to the disadvantage of the islanders.

Nowadays the greatest economic importance of the cattle probably lies in their use for draft purpose. Trained bullocks are used for drawing small home-made carts, and this means of transport is very important for all kinds of work on the north-western plain. It is naturally confined to this plain as there is no approach for a cart to other parts of the island. All trained bullocks, therefore, are kept on this plain

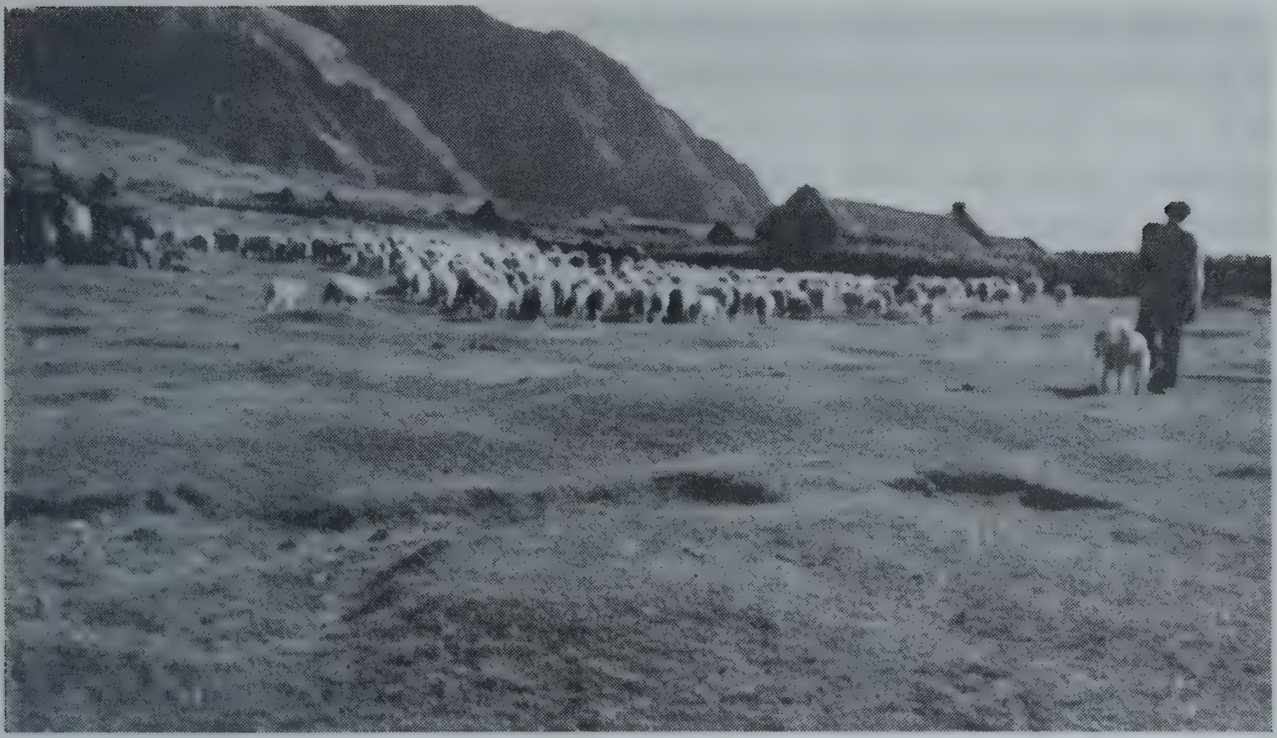

Fig. 55. The "farm flock" being "turned in".

and form the majority of the home flock. But recently their stock has been supplied mainly from the two herds in Stony Beach and Seal Bay. All bull-calves born on the island are castrated, only one bull being always kept on each of the three ranges Stony Beach, Seal Bay, and "this side". Castration is performed simultaneously with the ear-marking, the testes being simply cut off with a knife.

Next to the cattle, the most important domestic animals in Tristan da Cunha are the sheep. These more frugal animals seem to suit the climatic conditions of Tristan better than the cattle; there have been no such heavy losses among the sheep like those which have reduced the stock of cattle. Consequently, on the north-western plain the sheep more and more dominate the pastures, though their number has not been increased since 1906.

Nearly all the sheep on the island are kept on the north-western plain, new pastures having only to a very small extent been brought into use for that purpose. As a matter of fact, of the flock of 780 sheep, only 9 were in 1938 kept in other places, 2 at Sandy Point and 7 on Inaccessible. The latter are of a new breed and were recently brought to the island as a gift from friends in England "to introduce much needed new blood", but were, by the order of the missionary, separated from the main flock and placed on Inaccessible as a valuable contribution to the economic resources of the prospected colony there. These sheep "belong to the island".

Otherwise, all sheep are privately owned by individual owners. There is no co-ownership, and one man may own up to 52 sheep. The sheep, too, have ear-marks. In spite of the growing importance of the sheep in relation to the cattle the islanders take much less interest in the former. They also take more pride in their cattle, much more social prestige being attached to the ownership of a pair of draught bullocks than of a quite large flock of sheep.

The islanders distinguish three different flocks of sheep on the north-western plain, the farm flock, the tame flock, and the bluff flock. The farm flock is the largest of the three, and also the most important. In 1938 it numbered 547 sheep. These are quite tame. The greater part of the summer they are kept near the houses, in the smaller northern part of the plain, lest they should invade the potato patches and eat the plants. For this reason the plain has been cut off at its narrowest part by a stone-wall, with a wooden gate where it is crossed by the road. After the potatoes have been dug, however, the sheep are usually driven out to The Patches. The farm flock is mostly "turned in" in the evening and penned for the night in the kraals or lamb-houses. These are small enclosures with high stone-walls on three sides, and a wooden fence with a gate in the lower open end. The denomination "lamb-house" seems to indicate that in former days these kraals were even roofed,[1] but now they have no roofs. They are usually placed together in groups side by side (see fig. 33). Every sheep-owner, however, has his own kraal. The sheep are easily turned in by one man with a dog, and the islanders take turns in doing this. At the kraals the different owners receive their sheep and see that they get their own inside. But mostly the sheep find the right kraal by themselves.

The other flocks always feed on the larger southern part of the plain. Curiously enough, they never come down near the potato patches though they are never guarded. The tame flock, which numbers 112 sheep not quite so tame as the farm flock, usually keeps near the base of the cliff, and the bluff flock, even that numbering 112 sheep, is regularly found near The Bluff on the hill-side at Burntwood. The sheep of the bluff flock are extremely shy, "wild" as the islanders say.

The sheep form the islanders' main source of meat. Mutton is very much appreciated by the islanders and is obviously much preferred to beef or any other kind of food. However, it is not everyday diet. But on all special occasions, such as Christmas, Easter, special birthdays, etc.

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[1] Cp. also Barrow (1910, p. 37).

it plays a prominent part.[1] In fact, on such occasions mutton is so important that to "kill a sheep" has become synonymous to giving a dinner to celebrate an occasion.

When a sheep of the farm flock is going to be killed, it is usually picked out in the kraal and taken there. In some cases the whole flock is turned in exclusively for this purpose. A sheep of any of the other flocks has to be captured by means of dogs, which usually chase it till it is hunted down. A clever dog, however, will be able to hold it so that it may be taken with the hands. This method is sometimes used even to capture a sheep of the farm flock. The sheep is killed by cutting its throat with a knife, sometimes an ordinary clasp-knife, and the blood is just let out on the ground.

Another very important produce of the sheep is the wool, which the islanders spin and knit. We have already heard of the part that home-knit articles play in the dress of the Tristan islanders, and also as articles of export. However, this source of wealth is probably not fully exploited. There is no regular or systematic shearing of the sheep, a sheep is only shorn whenever wool is wanted for knitting. And it is practically only the sheep of the farm flock that are ever shorn at all. With the "bluff" sheep shearing would probably be almost impossible because the animals are too wild. But even the "tame" sheep are so skittish that shearing would at any rate be rather difficult, and, therefore, they are practically speaking never shorn. However, the wool that may be procured from the farm flock is about as much as the islanders can manage to exploit as long as knitting is the only way in which they can utilize the wool.

Finally, the sheep-dung, as mentioned, forms an important part of the manure for the potato patches. It is obtained from the kraals and, as a matter of fact, this is the islanders' main object in turning in the sheep every evening.

In former days, pigs seem to have played an important part in the household of the island. Like cattle and sheep they were introduced in the very early days of the settlement, and in 1880 there were "plenty" of them. Like all domestic animals they were at first left to themselves and had to find their own living, and, of course, they did great damage on the pastures with their grubbing for roots. Some ten years ago, however, they were all killed off, and new pigs, which were soon after introduced again, were placed in pig-sties and fed with refuse of all kinds. There are two or three such sties in the settlement, each containing one or two pigs. They consist of a long square enclosure, part of which has been roofed. There is no opening in the stone walls. One pig goes free on Inaccessible and feeds — obviously luxuriantly — on eggs and young sea-birds. In 1938 there were altogether only 5 pigs kept in Tristan. Four of them including the one on Inaccessible belong to the island, and one is the joint property of two individual islanders. All of them have been introduced from outside, there being no breeding of pigs in Tristan. Under these circumstances it is obvious that to-day they play an inconsiderable rôle in the household of the island.

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[1] Cp. the list of meat dishes and their use given by Henriksen and Oeding (1940, p. 123).

Quite a number of poultry are kept on the island, especially geese and fowls, there being only a few ducks as yet. The fowls may be found anywhere on the north-western plain, and coops have been made for them in different places, sometimes far from the houses. These coops may consist of a rough shelter under an overhanging piece of rock, or they have been built up like small huts. However, there are too many fowls for the few small coops that have been built, and most of them, therefore, lay their eggs in the open. Sometimes a sitting-hen is allowed to incubate in the kitchen of the dwelling house, and weak chickens are often taken into the house. The geese mostly keep near the houses, obviously because of the many brooks that are found there. The poultry, too, are never fed, but must find their own living. Consequently their yieldings are very small. The geese are lean and tough, and the quantity of hens' eggs procured is inconsiderable. The importance of these animals, therefore, does not correspond to their number.

The home-made bullock cart is not the only means of transport by land that the islanders employ. They have also donkeys, which are used for carrying loads and as mounts. Even this means of transport, however, is confined to the north-western plain. The flesh of the donkey is never eaten, but the hide is sometimes used in moccasins.

A very important domestic animal in Tristan da Cunha is the dog. The Tristan dog is a lop-eared and long-haired mongrel. It has much of the appearance of an English collie. It is quite intelligent and may be trained for different tasks. Some islanders take much trouble in training their dogs and are proud to have an obedient and clever dog. Others, however, only give their dogs a barely sufficient training and otherwise do not care much about them. These people only occasionally feed their dogs, for the greater part leaving them to find their own living. Consequently, the dogs are constantly found nozzling and routing in the refuse heaps. In addition they kill hundreds of penguins along the beaches, and occasionally they may even take a goose or other poultry.

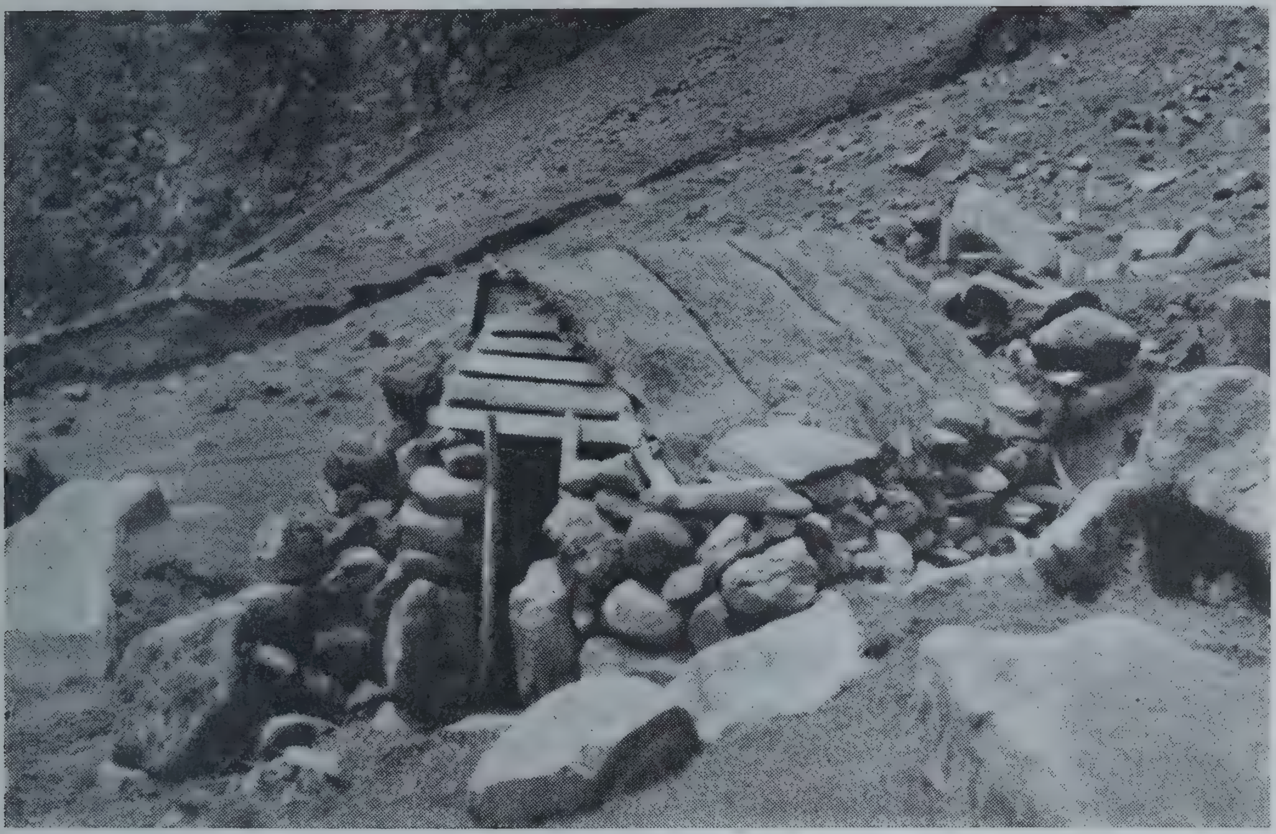

Fig. 56. Coop.

The dog is important to the islanders, in the first place in herding the sheep and cattle. Dogs are used when turning in the sheep and when capturing a sheep for killing or shearing. They are also used when ringing in the calves for ear-marking and cutting, or for the milking of the cows in Seal Bay. The hunting of the wild cattle in Stony Beach, however, is always done without dogs because they would chase the cattle more than necessary. On the other hand, when "hunting" young sea-birds on the hill, the islanders frequently make use of dogs which trace out the nest and bark when it is found. The help of dogs is also indispensable when hunting the wild cats, which they attack and kill. Many dogs are also trained to fetch any object that they are "pointed after", such as a piece of wood floating in the sea, etc.

Fishing.

With the abundance of fish in the waters round Tristan da Cunha it is natural that fishing should become one of the most important occupations of the Tristan islanders. Fish, therefore, has always played a prominent part in the nutrition, and to-day it is, next to potatoes, the most important kind of food on the island. During the later part of the winter, when potatoes usually start to become scarce and eggs are not yet available, it is even the main aliment of the islanders, especially of the more lazy ones, who frequently have to rely entirely on fish and crawfish during this time of the year.[1]

Winter is also the best time for fish. In the winter months, from June to August, the coast of Tristan is frequented by some large kinds of fish. Especially the blue-fish (*Seriolella antarctica*) is numerous and may be caught in great numbers near the coast. This is a large fish of a dark bluish colour and of a very good taste. The stumpnose (*Seriolella Christopherseni*), too, is a very good eating fish, and is much appreciated by the islanders because of its rich fat. It is comparatively rare, and so is the steam-bras. The latter may weigh 100 kg. The best fishing ground in winter seems to be on the south coast of the island, and whenever the weather permits the islanders go in their small boats to that part of the island and mostly return with their boats fully laden. Otherwise, the most common kind of fish all the year round is one resembling the perch, but bigger, which the islanders call five-finger (*Acantholatris monodactylus*) on account of its having five dark stripes, like finger-marks, on both sides. This fish is found in plenty near the shore down to a depth of 25—30 fathoms of water. Another very important eating fish is the snoek (*Thyrsites atun*), the same kind of fish which is caught in great quantities along the coast of Africa. Both the five-finger and the snoek may be caught all the year round also on the north side of the island just off Little Beach, which is the most commonly used fishing ground in summer. Besides, in the summer months, especially in the later part of the summer, the islanders catch considerable quantities of the large mackerel (*Decapterus longimanus*) which goes in shoals near the coast.

A kind of crawfish (*Palinurus*) is present in abundance near the shores of Tristan da Cunha. This crawfish is about as big as the lobster, but has no claws. The female, which is much smaller than the male, is generally found at small depths near the shore, while the bigger male seems to keep to greater depths, 25—30 fathoms, except when in the summer months it comes in to fecundate the spawn. The crawfish, too, is present in abundance all the year round, and is easily caught in large numbers in summer as well as in winter.

The fishing methods, again, are very primitive, and the implements are the simplest possible. The islanders do not use other implements than line and hook. These cheap tools are those which are most easily obtained through barter with passing ships, and although in later years

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[1] Cp. the diet lists for three different families given by Henriksen and Oeding (1940, p. 110 sq.), especially that of "family no. 3", (p. 112).

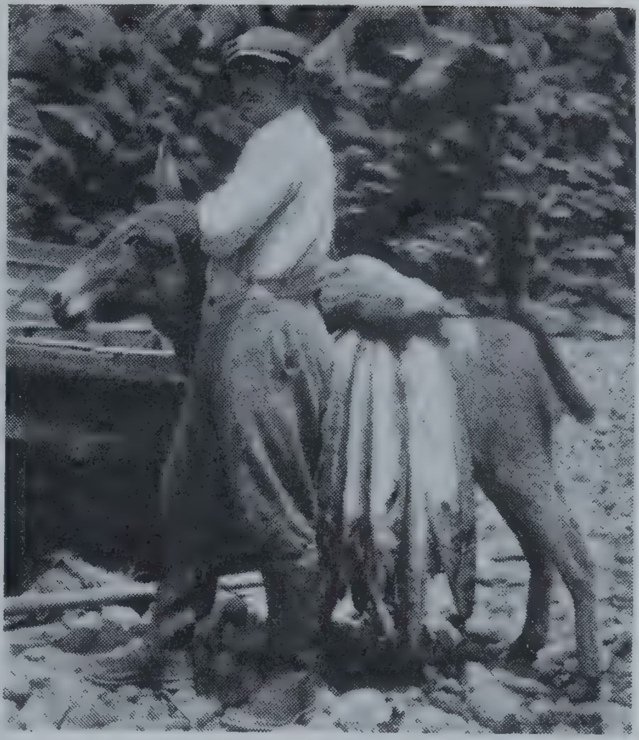

Fig. 57. A catch of mackerel.

most fishing tackle has been procured by mail direct from England, this is still the only fishing method known by the islanders. An ordinary stone picked up on the beach and tied to the line serves as a weight. For baits they use cliffish (*Bovichtys diacanthus*), a small kind of fish which is found in great numbers in pools near the beach. Otherwise they may use the flesh of the octopus, which they frequently catch with their hooks, or of the crawfish or any kind of fish. When fishing for snoek and mackerel, which are found near the surface of the water, they frequently bait up the surrounding water by beating a fish's head or a crawfish against the gunnel of the boat so that the contents are spread over the water's surface. The line used for this fishing is comparatively short and has no weight. When catching crawfish, the islanders use a bare line with a weight, but without a hook. The bait is tied directly to the line and is dropped to the bottom. After a few minutes the line is carefully drawn, and the voracious crawfish will hang on to the bait, and are thus easily brought out of the water. Sometimes as many as eight or ten crawfish may be caught in one cast, and a boat is easily loaded in two or three hours. For bait are used big pieces of fish, crawfish, or meat. Frequently the islanders tie the entire carcass of a skinned penguin to the line. Smaller crawfish (females), which are generally found close to land, are sometimes caught with a large scoop. This is usually home-made and consists of a rough network of wires over a wooden frame made of a branch of apple tre or willow, or of an old barrel hoop.

The islanders usually fish from their boats, which they moor by throwing one of the thick stalks of the kelp over the stem or one of the rowlocks. Women and children, however, frequently fish from the beach. Standing as near the water as possible on account of the surf, preferably on a rock or a stone, they fling the weight with the line as far as possible out into the sea. However, only comparatively small five-fingers and "soldiers" may be caught in this way. The fishing of crawfish, nevertheless, is usually done from the rocks on the beach, especially so in summer when quite large crawfish may be caught in this way. But in winter, when the larger and, therefore, more pursued males go out to larger depths, the islanders mostly make use of their boats even for this kind of fishing.

As the abundance of fish near Tristan is so rich, the islanders have mostly no difficulties in catching as much fish and crawfish as they need, even with these primitive methods. The only hindrance that may occur is bad weather. As there is no harbour or sheltered bay in the almost circular coast-line of the island, a heavy surf makes all fishing impossible, either from boats or from the beach. Quite frequently in winter, which is the time when the islanders are most dependent on fish for their nutrition, all fishing may be precluded for weeks at a time on this account. Thus in the winter of 1938, which was a bad year in every respect, there were only 7 days in July, 8 days in August, and 11 days in September on which fishing was at all possible.[1] In winter, therefore, the islanders go fishing whenever the weather permits, and even in summer, on good days, two or three boats are always seen fishing off Little Beach, except perhaps for a few weeks when the digging of potatoes demands all the working power of the island.

When a boat returns from fishing, the fish is cleaned directly on the beach and divided equally amongst the members of the crew. The islanders know no effective methods for the preservation of the fish, and especially in summer it quickly decays. At this time of the year, therefore, the islanders only fish enough for one or two days. In winter, however, when greater quantities of fish are brought home — also because of the uncertainty of the weather conditions —, the fish may be salted and dried to make it keep. For this purpose it is usually split into fillets which are rubbed with salt and nailed to the inner side-wall of the fire-place where it is dried (and smoked at the same time). Then it is put in bags and hung up in the hut. In this state it may keep for two or three weeks.

Hunting and Gathering.

The greater part of the year the Tristan islanders live on a rather monotonous diet of fish and potatoes, sometimes in the winter of only fish. Any change, therefore, comes very acceptably to them. Beef or mutton, as we have seen, are luxuries which are only had on

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[1] See quotation of a letter from an islander, Henriksen and Oeding (1940, p. 108).

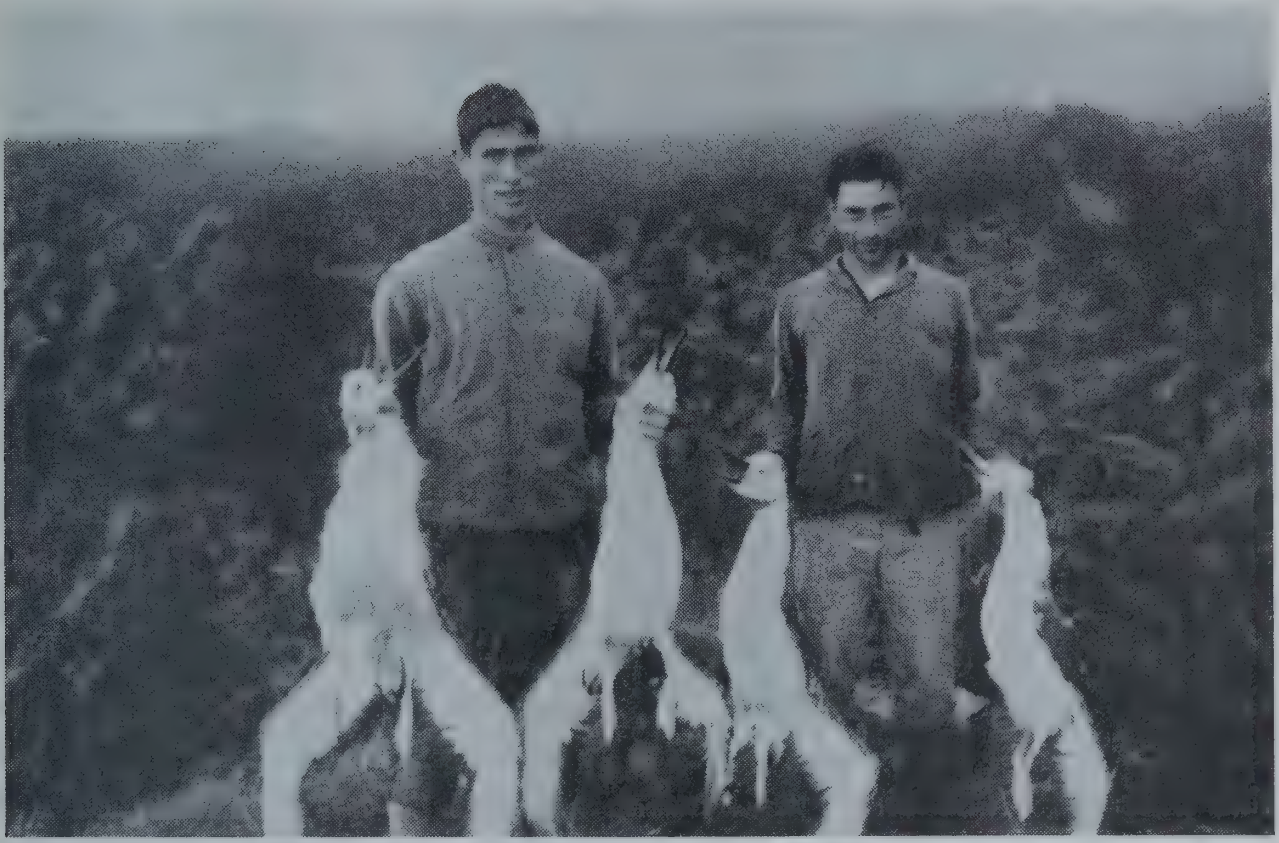

Fig. 58. Young mollies in March.

special occasions. All the more do the islanders appreciate whatever changes may be afforded by what the wild life of the islands may contribute to their nutrition in the form of sea birds and their eggs. These contributions are distinctly seasonal, but, nevertheless, they play a most important part in the economy of the Tristan islands. At certain times of the year they form the main subsistence of the islanders. Thus the seasons of the bird life still determine the islanders' diet as well as their work at various times of the year.

In the spring the birds are preyed on for their eggs, which are collected and consumed in great quantities. The season starts with the return of the penguins which nest in large rookeries on the east and south-east side of the island as well as on Nightingale and Middle Island. They come up to nest in August, and in September they lay their eggs, three in number in each nest. They are soon followed by the mollies, and in November there is the great invasion of petrels to Nightingale, their only known nesting place (excepting a few on Inaccessible). Thus the "egg time" lasts for two or three months, and during all this time eggs have a prominent place on the islanders' fare. For several weeks they live mainly on eggs. But still more important for the nutrition of the islanders are the young birds. These are sought for their flesh, and for their fat which is very rich towards the end of the nesting season, *i. e.*

March—April. The hunting of young birds, however, starts already in February and goes on with increasing intensity until it culminates with the great hunting expedition to Nightingale in April. The young mollies are the most pursued game, and thousands of them are killed every year, but they also take young and old petrels and other birds.

Penguins are practically never killed for food. Ony last year's young ones are occasionally, but very rarely, taken for their flesh in December, when they come up to moult for the first time. But this bird is preyed on for other purposes and is, besides the molly, probably the most pursued bird on the islands. The kind of penguin found in Tristan da Cunha is the small rock-hopper, also called Jumping Jack. It is characterized by its "tossels" (tassels), a bunch of long, bright yellow feathers over each eye. These birds leave the islands already in January, but from February till April the old ones come in again to moult. At this time they are provided with a thick layer of blubber, from which the islanders extract oil, and hundreds of penguins are killed every year for this purpose. The oil is used in the home-made lamps and to oil the inside of the canvas before it is stretched over the boats. It may also be used in paint, but sparingly, as too much of it burns the canvas. In the middle of March, as the moulting proceeds, feathers are gathered from the moulting penguins. Small enclosures of stone walls with one open end, so-called "yards", are built up in the rookeries, and into these are driven hundreds of penguins. Then they are taken one by one by their necks, and hanging over a bag they are deprived of their loose feathers. The feathers are never cleaned, but are used as they are in pillows and bedclothes. Even the moulted feathers, which are found in great masses on the ground, are picked up and used if they are fairly dry and clean. Finally, in April, when the moulting is finished, and also in the spring, from July till November, hundreds of penguins are again killed for their "tossels", which are used to make decorative mats etc.[1] At this time they have little or no blubber left, and the feathers are fast and shining; especially the "tossels" are more bright than ever.

The hunting methods are very simple. The birds are taken with the hands and their necks broken. Fire-arms are never used. Even when occasionally the islanders kill an old molly, they take it with their hands, sometimes first hitting it in the head with a stick. This is quite easy, as the molly on account of its long wings cannot take wing on flat ground, but has to throw itself from a precipice. When hunting young birds on the main island, where mollies are scarce now, the nests are

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[1] About the penguin mats etc., see below (p. 177 sq.).

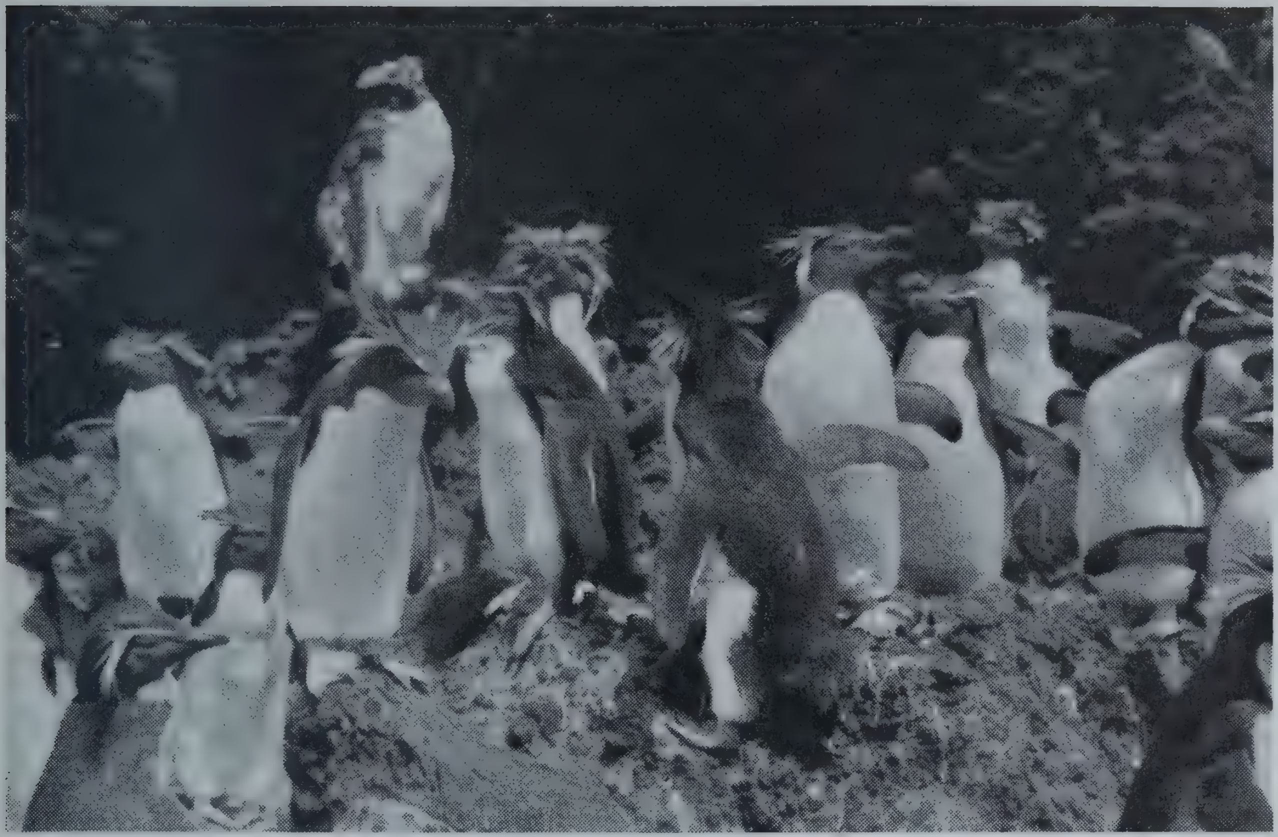

Fig. 59. The rock-hopper penguin.

traced out by means of dogs, which bark when the nest is found, but without attacking the bird. The birds are just skinned and carried home in special "mollybags" made of unprepared ox-hide with the hair-side out, but with the upper part made of canvas. On Nightingale, however, the fat is extracted on the spot in drums, usually made by cutting down an old oil-drum. The flesh is salted down in boxes which are soaked in water beforehand to make them tight.

It will be understood that the contributions of the bird-life for the subsistence of the Tristan islanders are not inconsiderable at certain seasons, and it is evident that the islanders employ them in a rather wasteful way. It is impossible to give any exact figures for the amount of eggs collected and birds killed every year. However, some impression of the quantities in question is given by the fact that a family of 8 persons may consume as much as 4—5 dozen eggs in one day in the egg season (Henriksen and Oeding, 1940, p. 114). We may safely reckon that tenthousands of eggs are collected and consumed or spoilt every year. The number of birds killed every year is certainly not so big as that, but even here we may assume a number amounting to thousands. An islander, Bob Glass, has recorded the number of mollies killed in the years 1923—27 and has given the following figures:

1923 — 4807 mollies
1924 — 3764 »
1925 — 4976 »
1926 — 4645 »
1927 — 3742 »

One should probably not rely too much on these figures, but they are certainly not too high. And we may presume similar figures for petrels and other birds. There is no sparing of the nests. On the main island the islanders probably clean the whole of The Base of young birds every year, and with this working of the already greatly reduced stock, it is obvious that the total extermination of the birds from this island is only a question of time.

The penguin mats are particularly characteristic of the wasteful way in which the islanders utilize their natural economic resources. When the penguins are killed "for tossels", they are killed exclusively for this purpose as they have no blubber when the feathers are new and fast. Now a "double-row" mat takes about 30 head-skins, which means as many adult penguins killed to make this one mat. And though the islanders know — and have observed themselves — that the stock of penguins is rapidly decreasing, they have no hesitation in killing these many birds in order to make such a mat, which, by direct or "indirect" barter, gives a shirt, or may be a pair of old trousers in return. (On the other hand, this fact tells as much about the value of a shirt or a pair of trousers in Tristan da Cunha.)

Thus the Tristan islanders have for generations utilized the natural resources of their islands perhaps more intensely than strictly necessary, at any rate more than desirable from a far-seeing economic point of view. And we have seen that, with the increasing isolation of the Tristan group, this utilization of the islands' own natural resources grew still more intense with an obvious and fatal overworking of the most important kinds of birds.

In this way the islanders have, radiating from the settlement, gradually thinned and partly exterminated the stock of birds on the islands, and, as a consequence of this process, the main hunting grounds have constantly been shifted at an increasing distance from the settlement. In former days the islanders probably caught enough to cover their need on the main island, and the bulk of birds and eggs were taken on the northern coast and on the northern part of The Base. However, as these hunting grounds were exhausted and the birds partly chased off the island and partly driven to the less easily accessible eastern part of The Base, the islanders had to start a regular working of the stock on the other islands, first on Inaccessible, and then — when even this island was "killed off" — on Nightingale. At present the main hunting grounds are on the latter island, and the islanders regularly visit it two or three times a year with large hunting expeditions. These are undertaken at certain times according to the seasons of the bird-life. In September—October the islanders go "over there" for penguins' eggs and mollies' eggs, in November for petrels' eggs, and in March or April "for fat", *i. e.* for young birds. They always go together in large parties with all their long boats. When going "for fat" they also take their women with them. The number of participants, however, is limited by the number and carying capacity of the boats. Each boat-owner is only allowed to take one partner with him, usually his wife or sweatheart, and only the owners and their partners are given room in the boats. As there are from 6 to 8 owners of a boat, this makes 12—16 persons in each boat. The work is usually divided so that the men kill and collect the birds, while the women extract the fat and salt down the meat. Also the quantities of birds and eggs taken are limited by the carrying capacity of the boats, each owner being only allowed to take home a certain quantity. Nevertheless, the quantities of birds and eggs taken every year is considerable, though it seems that with the immense number of birds hatching on this island the stock has not been overworked as yet. The only exception is the molly, which slowly but surely is being exterminated even on Nightingale.

In later years the missionaries have tried to make the islanders understand that they ought to limit the catching of birds in order to preserve the stock, and one of them managed to make the islanders agree upon certain "rules" to this end. According to these rules, eggs are not to be taken on the main island except when bad weather precludes a regular visit to the other islands. Besides, each boat owner is only allowed to take 140 mollies' eggs from Nightingale every year, and of young mollies as many as the "chief man" stipulates for each year according to the general condition of the stock, varying from 30 to 60 young mollies per boat-owner. Finally, it should not be permissible to take young mollies on the main island without the sanction of the "chief man". These rules, however, are not effective, and especially the latter rule, concerning young birds on the main island is merely illusory, because every one is allowed to take "what he needs". Moreover, this rule is simply ignored by the majority of islanders.

The catch of animals other than sea-birds is negligible. The sea elephant was once numerous on the beaches of Tristan, and used to play a prominent part in the economy of the little community. But now it is practically extinct. Only occasionally single species of it come up on the beach and are killed by the islanders with stones.

According to a record kept by an islander (Martha Rogers), in the year 1937 five sea elephants were killed on the beaches of Tristan, all of them during the winter months May, June, and July. As the sea elephant is of great value to the islanders on account of its blubber, from which they extract oil, it may be assumed that these five were all that were seen during that year. There are no records for previous years.

The fur seal, too, was formerly present in great numbers. Now only a few are occasionally killed on Inaccessible. The islanders sell the skins on board passing ships. To preserve them until a ship is boarded — a long time may sometimes elapse — the skins are salted down in wooden boxes. Nevertheless, a seal skin is often spoilt before the owner has had any opportunity to sell it.

Wild cats are sometimes hunted by means of dogs. The skins are sold on board passing ships or sent as gifts to friends in Europe.

The wild flora of Tristan da Cunha does not contribute much to the economy of the community. There are only a few plants which may be utilized by the islanders, and even what may be had is not fully turned to account.

The only wild plant that plays any part at all is the island berry (*Empetrum rubrum*), a kind of crowberry which is found in abundance in Seal Bay and in the lower part of Cave Gulch as well as at Pigbite. It ripens about Christmas-time or shortly after. These berries are very popular among the islanders, and when it is "berry time" they never return home from a trip to Seal Bay or Stony Beach without a good load of them. They even play a considerable part in the Christmas dinners in the form of berry pie, and a few days before Christmas, therefore, the young boys and girls go in large parties to Seal Bay "for berries", though at that time the berries are not always quite ripe.

The peak berry (*Empetrum rubrum* var. *tristanitorum*), a red variety of the island berry, which grows on the hill, is also very popular, and the islanders prefer it to the island berry as it is sweeter. However, as the islanders seldom have an errand to these higher parts of the island since the extinction of the bird life here, these berries are only occasionally picked. Curiously enough, the islanders never seem to make excursions to The Peak exclusively for the purpose of picking berries, though the quantities found might well account for the trouble of such a trip.

Other wild plants, such as wild celery and wild mustard are seldom used, only occasionally in soups. Island tea (*Chenopodium tomentosum*), a herb which is found anywhere in the lower plains, is used as a tea substitute. It is prepared in the same way as ordinary tea, and the leaves are used fresh or dried.

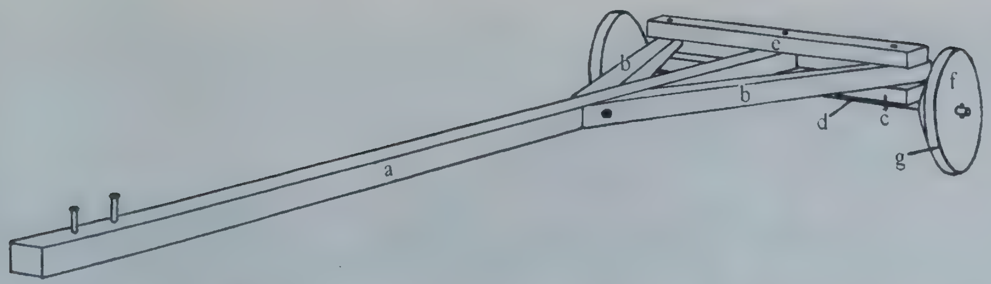

Fig. 60. The underframe of an ox-cart. a pole, b bracers, c axle, d arm, e cross-piece, f. wheel, g hyne.

Transport and Travels.

The area that can easily be reached by land from the Settlement of Tristan da Cunha is very limited. Actually, it is confined to the north-western plain. At the back of this plain are the cliffs which rise almost perpendicularly to a relative height of 6—700 m, and in both ends it is bounded by bluffs which are impassable for wheeled transport. This plain, therefore, is the only area that is accessible for any kind of vehicle and, on the whole, for any means of land carriage known by the islanders.

Nevertheless, the plain is big enough to make the use of some kind of vehicle and other means of locomotion convenient and even necessary. Potatoes have to be brought home the 2 miles long way from The Patches, fire-wood and building stones are fetched from the hill-side, and various heavy loads have to be brought up from the beaches. For this work the islanders avail themselves of primitive home-made ox-carts, and of donkeys.

However, it is the boat that is the all important means of locomotion in Tristan da Cunha. It is a matter of course that among a population of islanders — and with so limited an area easily accessible by land as here — the boat should play a most important rôle. For many necessities of life the Tristan islanders depend entirely on their boats. In the first place some watercraft is necessary for the fishing, as the quantity of fish that may be caught from the beach would be quite insufficient. Boats, of course, are also an absolute condition for the utilization of the rich hunting grounds on the neighbouring islands. Even a somewhat full utilization of the economic sources of the main island is conditioned by the use of boats. It is true that almost any part of the island is accessible by land, either along the coast or — if the latter road is blocked by a heavy swell — over the hill, and only a part of the south-east coast is impossible to reach by land on account of bluffs and precipitous cliffs. However, as these land tracks are not passable for any transport animal known to the islanders, boats are the only means of

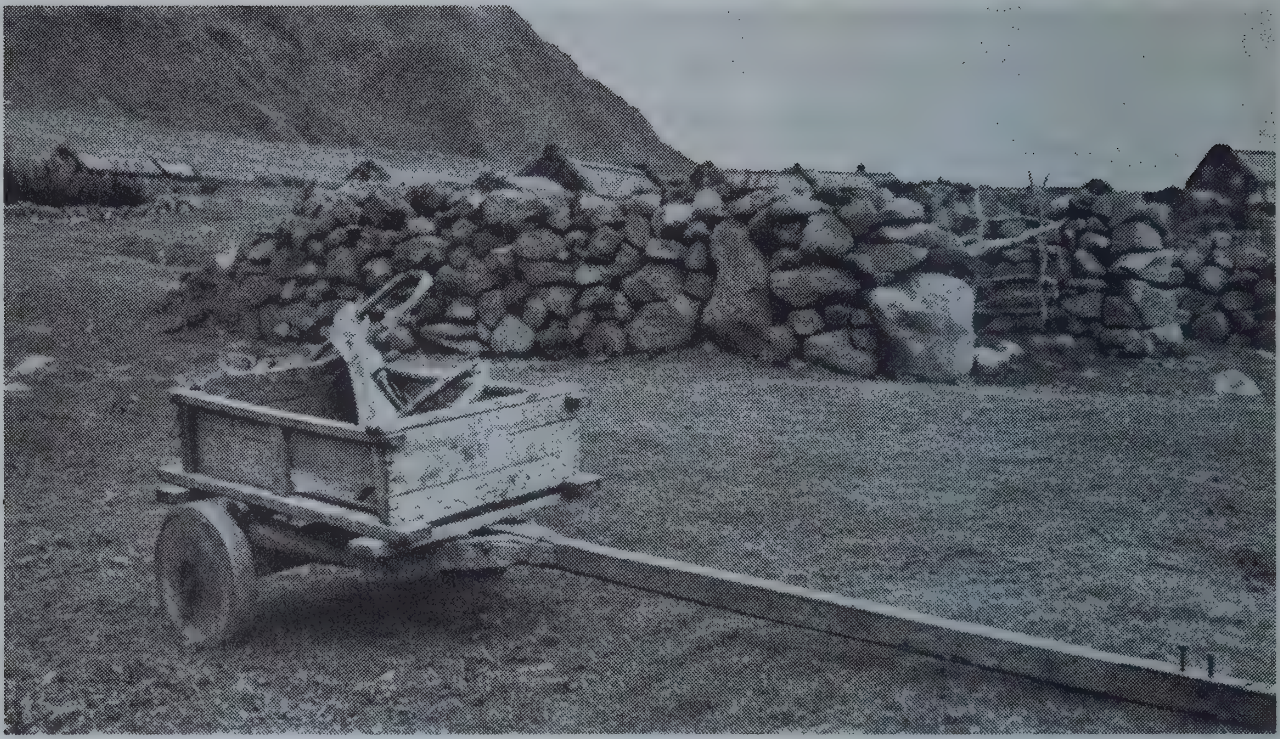

Fig. 61. Ox-cart.

transport of loads that are too heavy to be carried on a man's back. Thus, for instance, the transfer of cattle to and from Stony Beach and the other pastures on the south and east side of the island can only be made by boat. Therefore, when going "round the beaches", *i. e.* to the other side of the main island, the islanders, even then, prefer to use their boats. Last but not least, the islanders need their boats for the boarding of ships from which they procure victuals, clothes, tools, and whatever other material they can get.

Conveyance by Land. The Tristan ox-cart is a small but very solid two-wheeled vehicle. The construction is quite simple. The long thill, or pole, rests on the so-called axle, a sort of cross-plank with which it forms a T. Two strivers, the so-called bracers, keep the two in a right-angled position, and as a further strengthening another plank, the cross-piece, is placed parallel to the axle on top of the pole and bracers (see fig. 60). The real axle, which the islanders call the arm, is an iron bar which is fixed to the under side of the axle. It is fixed rigidly. The wheels are disk-shaped and should preferably be made of one solid piece of wood, but at need they may be made out of two or three pieces. They are rather thick, and have a plane-convex form. The edge of the wheel is protected by an iron band, the so-called hyne. The frame is a square-shaped open case, the back end of which may be removed to facilitate the unloading of the cart. The whole frame may also be removed and

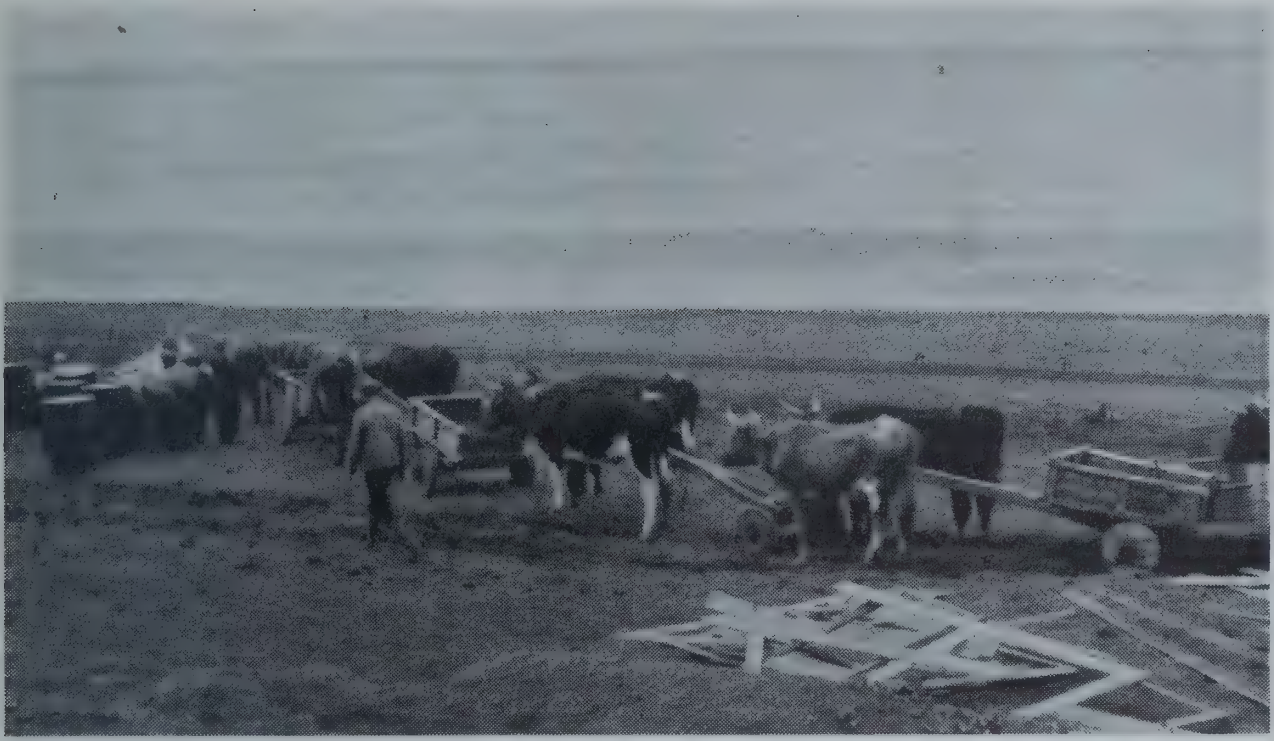

Fig. 62. Carting loads from Big Beach.

is not used when transporting large, heavy objects like building stones, etc.

The cart is drawn by a pair of bullocks under one yoke. The latter consists of a roughly fashioned piece of wood which is placed across the necks of the bullocks. When drawing particularly heavy objects up the rather steep road from the beach, another pair of bullocks may be put in before the cart. This latter pair is placed in front of the other, and is attached to the yoke of the rearmost pair by means of a double or triple rope. In this case one driver is required for each pair of bullocks.

All draught bullocks are individually named, and a pair of bullocks always consists of the same two animals. The driver walks alongside of them, always on the left side — hence the terms near bullock and off bullock for the left and the right bullock respectively. He carries a whip in his hand, a narrow thong of ox-hide, about a yard in length, fastened to a wooden shaft of about the same length, or a little shorter. The signals used when driving consist of calls and gentle touches with the whip.

The training of the calves usually begins when they are two years old. Calves of the Stony Beach cattle that are going to be trained must be transferred to Seal Bay before they are one year old. If they get much over that age they grow too wild to be broken in. In Seal Bay, where the cattle are tame, the calves may be left till they are two years old, when they are taken home for training.

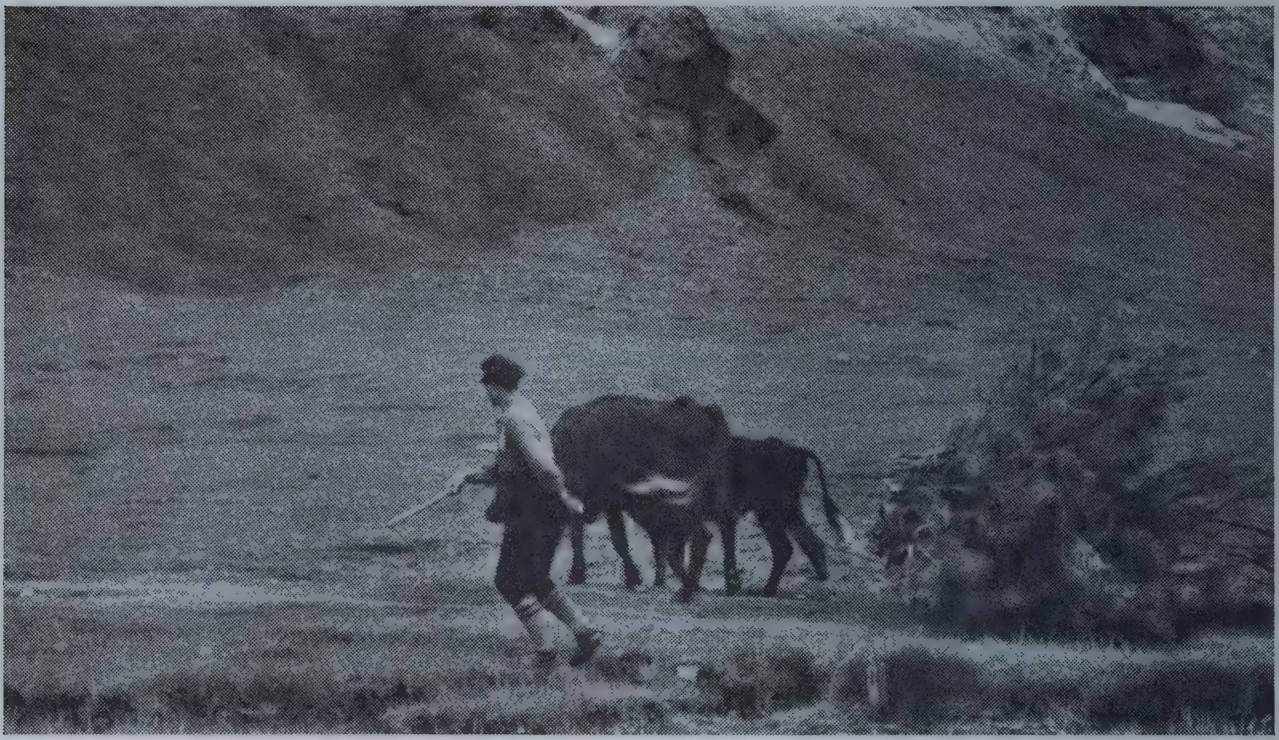

Fig. 63. Trailing home a load of wood.

The Tristan islanders even have another kind of vehicle, a primitive wheelbarrow, which is used for carrying smaller loads over short distances. Probably, this rather slender vehicle can only carry light loads, and it is very little used by the islanders. Actually, during our stay on the island I only saw two wheelbarrows, one of which was out of repair, and I never saw either of them in use.

Donkeys are used for carrying loads, and as mounts. The islanders use a saddle of sheep-skin. This is simply a rectangular piece of skin which is stretched over a frame made of two parallel, angular pieces of wood connected and supported in both ends by two streight members (see fig. 65). It is tied under the belly of the animal with a piece of rope from near the foremost angle, and another piece of rope serves as a crupper forming a strap from the top of the rearmost angle and passing under the donkey's tail. This saddle is even used when the donkey is loaded. The boys, however, usually ride without a saddle, sitting on the donkey's rump. Stirrups were seen in one instance, but mostly the islanders do without them. Bridle and reins are not used. Instead a rope is tied round the donkey's neck, the rider holding the loose end of it in his hand. This rope, however, is not used in conducting the animal. This is done by signals similar to those used for the bullocks, namely by means of a stick with which the rider, or driver, touches the side of the donkey's head when he wants it to change direction. The donkeys wear no shoes, and their hooves are generally never cut. As

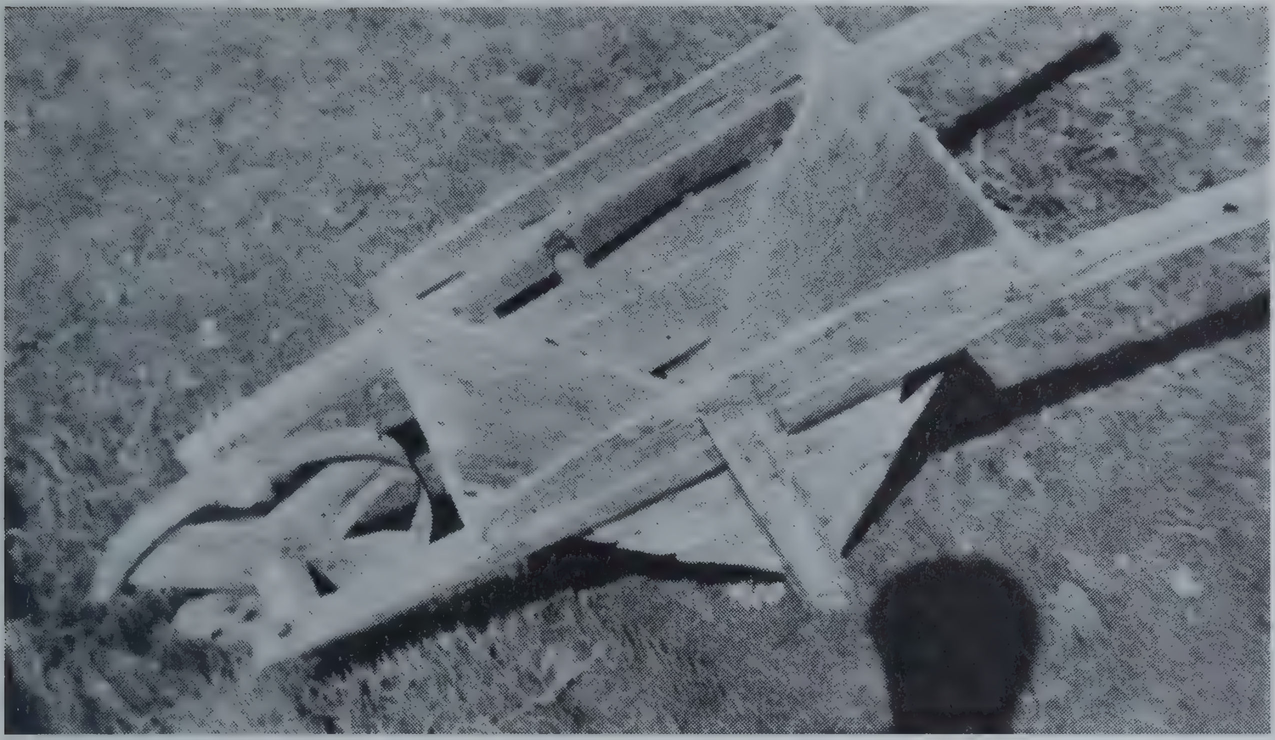

Fig. 64. Home-made wheel-barrow.

there is very little wear of the hooves on the soft ground they sometimes grow into long twisted shapes which obviously discommode the animal in the walking and make it a poor carrier.

The solid Tristan ox-carts as well as the donkeys may without difficulty be used all over the plain independently of roads, except for the crossing of gulches. Roads, however, have been made on the more important routes. There is one road to each of the two main landing places, Little Beach and Big Beach, and one road leads across Hottentot Gulch to the Patches. Between the houses these main roads divide into several lines leading to different parts of the settlement (see fig. 33). For the greater part these roads are nothing but tracks. In some places, however, the ground has been levelled, small inequalities and humps having been removed by cutting the road-bed into the ground. Where the road leads down the steep cliffs on to Big Beach and Little Beach it has been dug (possibly blasted) into the side of the cliff, thus forming a shelf on the cliff-face. The small brooklets in the settlement as well as The Big Watering, are crossed directly through the water, only the latter having a couple of small foot-bridges of planks. The rather high banks of The Big Watering, especially in the lower part, are mastered, even there, by cutting the road-bed correspondingly deep into the ground on both sides. The same method is used when crossing a gulch, and at Hottentot Gulch the road-bed has been dug two or three meters into the ground. Besides, in the bottom of the bigger gulches it has been necessary to build up small kinds of embankments of stones and earth. These have to be renewed after each flood.

Beyond the north-western plain the main island is only accessible by foot or by boat, and the islanders frequently make the journey by foot, both to different parts of The Base and to the other sides of the island. Tracks have been formed along the principal routes.

When going to the other sides of the island the islanders prefer to walk along the beach where this is at all possible. But first they must negotiate the bluffs that bound the north-western plain to the NE and to the S. These bluffs are only passable by climbing the cliff-face up to a height of 300—500 m and then down again on the other side. But when they have first been negotiated it is possible to pass along the beach from Rookery Point to East End, and from Anchorstock to Stony Beach. Only the south-eastern coast, from East End to a place just north of Stony Beach, is inaccessible by land. Especially on the south-western coast, however, the beach is rather narrow and is only passable in calm weather — and even then one has to "run the bluff" in some places, *i. e.* one must try to run past the bluff between two rollers or, otherwise, pass through the surf. In rough weather the whole coastline is turned into a single long bluff — hence the name Longbluff — and the only passable road to Seal Bay and Stony Beach goes over The Base where there is a well-used track leading up from Burntwood, and then following the contour line for 2500 feet (see fig. 2) over Soggy Plain, to Cave Gulch where it goes down to Stony Beach.

The Soggy Plain track is a very important route as it also leads to the hunting grounds around Soggy Plain and Joey's Garden which are the chief hunting grounds on the main island to-day. There is also a track leading up the steep cliffs above Pigbite to The Ponds and the whole district that is referred to by the islanders as Up The East'ard. This route, however, is only seldom used now since the mollies became almost extinct in that part of the island. A third route follows the north side of Goat Ridge (just to the SW of Hottentot Gulch). This is the quickest approach to The Base from The Houses, but is of inconsiderable importance now.

The Tristan islanders are very good walkers. They have a light elastic gait in their light moccasins, and they walk amazingly quickly. Usually they make the distance from The Houses to Sandy Point or to Seal Bay in two or three hours, which means a speed of 4—6 km an hour over uneven ground, including the climbing of the cliff-side up to a height of 300—500 m. And this does not seem to cost the least effort on their part. They are amazingly sure-footed and can walk along the

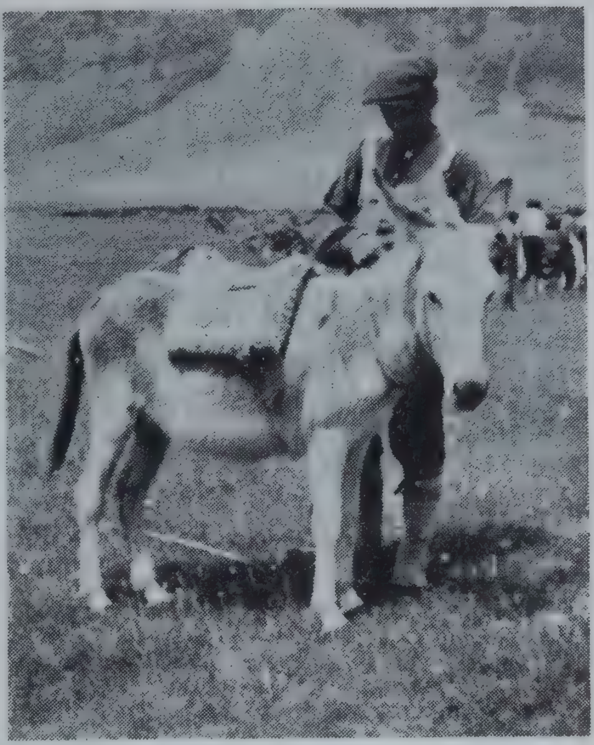

Fig. 65. Saddled donkey.

most precipitous cliffs with heavy loads on their back. Once I saw two islanders come down the shelf-like track on the almost perpendicular cliff-face at Burntwood, each with an entire phylica tree on his neck. Their carrying capacity is very great, and a heavy load does not seem to incommode their walking very much, even on a comparatively long journey. They carry their loads on their necks and shoulders, shooting the head much forward while carrying. In this way many of the men have developed an extra mucous bag over the 7th vertebra of the neck, which functions as a kind of pad.

Knapsacks are used for carrying dry clothes — which are generally taken on these walks — and other necessaries, and young mollies are carried home in special molly-bags of ox-hide. These bags are provided with shoulder straps made of one single length, the both ends of which are fastened to the bottom corners of the bag. At the middle of the strap it is tied to the top of the bag by means of a string which at the same time closes the bag. The straps are made of a long piece of canvas or tow-linen which is folded lengthways and sewn together along the edges, whereupon it is stuffed with wool. Eggs — and apples — are carried in special egg-boxes, which are closed boxes, with only a small opening with a lid at the top end. Even they are provided with similar shoulder straps.

The Boat. Throughout the greater part of last century the islanders probably covered their need of boats by bartering whale-boats from whalers. A few life-boats, possibly, were also procured from shipwrecks. In one instance it is known that a life-boat was presented to the islanders as a gift from the Board of Trade. This was the life-boat which in 1885, on one of its first trips, was lost with 14 men. These wooden boats, of course, were very well suited for the open sea. However, they were not well adapted for landing through the surf on an open and unprotected beach. Moreover, with the increasing isolation towards the end of the century, the supply of ready built boats from outside sources must have become insufficient, and so the islanders had to start their own boat-building in order to cover their need.

The art of boat-building is thus only about 50 years old in Tristan da Cunha. Nevertheless, the islanders have already created a tradition of good boat-building which gives a very good impression of their skill and ingenuity. Even here the pattern is European: the model is obviously the open whaleboat, or rather a combination of whale-boat and life-boat. But the islanders have well understood how to derive benefit from the experiences made with these boats, and in accordance with the peculiar conditions of Tristan da Cunha, especially the absence of protected harbours and landing places, and with the nature of the accessible and usable building material, the prototype has passed through so many and crucial alterations that we may well talk about a Tristan boat-type of its own.

The Tristan boat may briefly be described as an open, double-ended, sea-going craft for pulling and sailing, specially adapted to launching and landing through the surf on an open and unprotected beach.

In the first place it is very light, made as it is of one thickness of canvas over a wooden frame-work. At first the islanders used to cover their boats with sea elephant hide, but as this animal was soon extinct they resorted to canvas, which was quite easily obtained from passing ships and whalers. The greater part of the necessary woodwork was also procured in that way. In later years, however, an increasing difficulty in procuring materials has also befallen the boat-building. Driftwood may be used if it is sound and it is sometimes employed for thwarts, stems, and sternposts. Larger pieces, however, are seldom had in this way, and especially for the long lengthways members of the construction, such as keels, keelsons, stringers, and gunnels, the islanders have lately been entirely dependent on gratuitous supplies of materials from England. The same applies to canvas. Keels and other long members are sometimes pieced together of smaller bits, but too much of this will, of course, weaken the boat. In smaller boats the canvas is frequently replaced by mailbags which are sewn together. Home-grown woodwork is only used in timbers and knees. Branches af apple tree or willow serve as timbers, and knees are made of nature-grown pieces of the island tree.

A contributory cause of the choice of this light building material may have been the constant want of wood-work on the island, though this want was not so great when the islanders first started to build their own boats as it is now. However, the light boat obtained in this way proved very convenient for landing on the open, and in some places

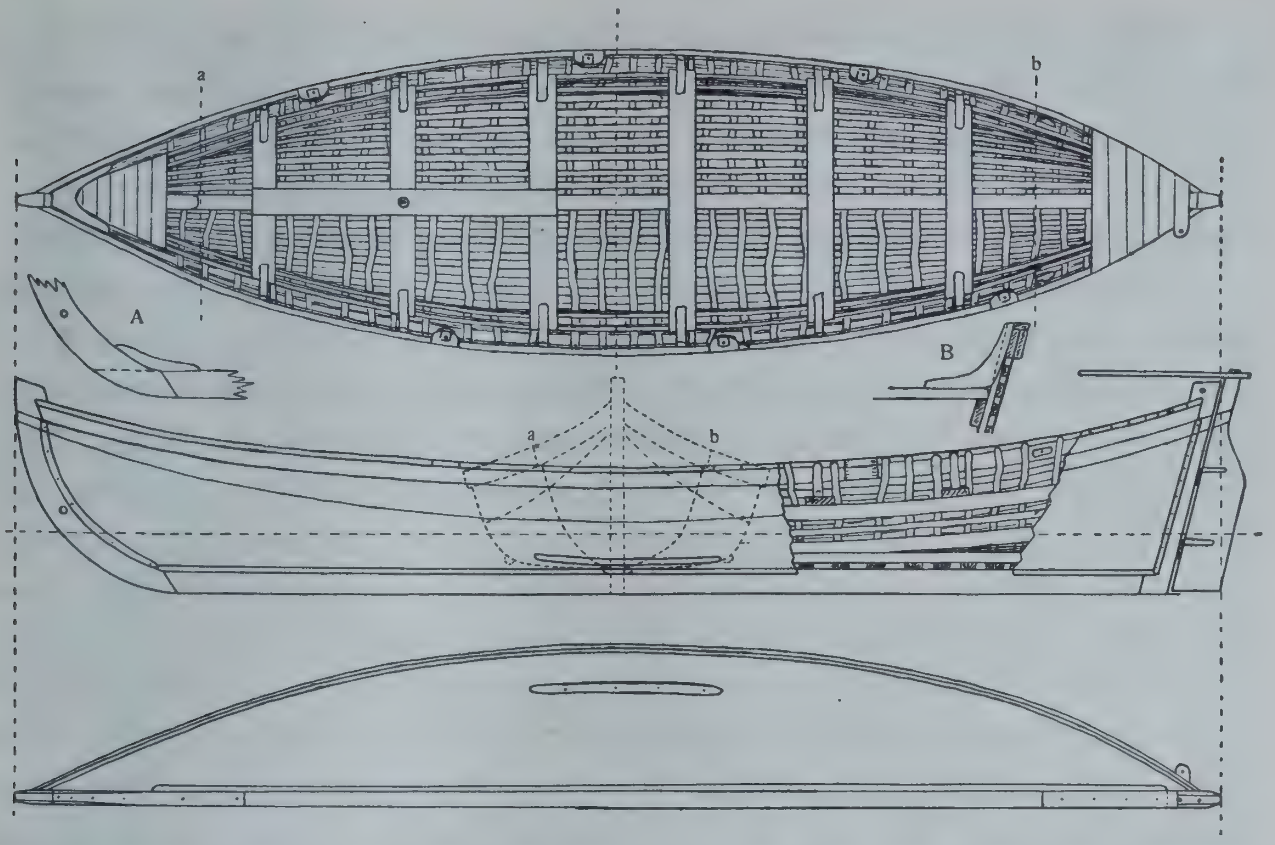

Fig. 66. Sketch of a long boat. The ceiling has not been designed in the port side.

rocky beaches as it may easily be beached by the boat's own crew, while the landing of a wooden boat of any size demands a large crew of helpers on the beach. A boat made of canvas over a comparatively slender wooden framework is also more flexible than a wooden boat and for this reason, too, is more fitted for the difficult landing conditions in Tristan da Cunha. Thus, on account of this quality, it can withstand a degree of rough usage that would break a wooden boat.[1]

The Tristan boat has usually a length over all of about 26 feet. The keel is straight and may be about 22 feet long. To give it the wanted depth it has often been necessary to put on a false keel. The drainage hole, or key-hole, goes through the keel near the stern. The stem (head) is curved and almost describes an arc of 90°. A sharply-curved stem, however, demands a comparatively broad piece of wood as making, and as such pieces are hard to get, a much more gradual curve may occur according to the breadth of the available material. The sternpost (stern) is streight and slightly raking. Both stem and stern rise equally high above the keel, namely about 4 feet. They are fastened to the keel by means of bolts. In addition the joint between keel and stem is further strengthened by a head knee, a slightly arching piece of wood which is fastened to the inner edge of both members (see fig. 66 A).

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[1] An interesting comparison may be drawn with the Irish currach, which still survives in the Aran Islands. The Aran islanders, like the Tristan islanders, live near a rocky coast, devoid of good harbours, and, as an adaptation to this environment, they still make their boats of canvas or tarred calico over a light and flexible framework of interwoven laths of thin wood (Carr, 1935/36, p. 1697 sq.). — Otherwise there seems to be no connection between the two boat types as they are of vastly different shapes and constructions.

The boat has a beam of about 6½ feet. The shape is thus medium broad, the proportion between length and breadth being about 4 : 1. The middle transverse section is very full, the boat being almost flat-bottomed in the waist with a rather sharp rounding at the bilge. This form gives it a somewhat full-built appearance and makes it stabile and safe in the sea. The body tapers evenly from the midships towards stem and stern. The afterbody, however, is considerably fuller than the bow. The depth amidships may be estimated at 2 feet. There is, however, a considerable sheer which is equalized over the whole length of the boat from the middle towards the top of stem and sternpost. The keel being streight, this means that the depth increases evenly from midships forward and aft, and the largest depth is found in the stern, just in front of the sternpost.

This very deep, pointed, but comparatively fullbuilt stern is one of the most characteristic traits of the Tristan boat, and it is an important feature of the adaptation of the boat to the special conditions of Tristan da Cunha, particularly to the difficult landing conditions. In particular this shape gives the afterbody an extra buoyancy which is of great importance, for instance when sailing before the wind in the open sea, for the speed of a boat, as we know, will always have a tendency to cause the afterbody to be drawn down. Here, however, the specially full form of the stern, and the very high freeboard of the quarter will neutralize this tendency, and cause the afterbody to be lifted up by each catching wave. Thus the wave is prevented from pooping, and its force when breaking against the boat's quarter is well utilized to push the boat forward in a kind of surf-riding, thereby considerably increasing the speed of the boat.[1] But particularly when landing the boat through the surf on an open beach, the high, pointed, and buoyant stern will be of great importance as the sternpost will cut the breakers, while the extra buoyancy of the afterbody and the high freeboard of the quarter will function in the same way as when sailing, lifting up the afterbody, and thus prevent the breakers from pooping. In this way even a heavily loaded boat may be beached quite safely through a moderate surf, and the force of the breakers is well utilized to carry the boat on shore. A corresponding fullness of the bow is not necessary, nor desirable, as the very progress of the boat against the surf when it is launched will carry it over the breakers, while a too full bow would check its progress when meeting a roller and render the launching more difficult.

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[1] Compare, e. g., the shape of a modern racing canoe.

This well adapted shape, of course, has not been arrived at at once, but has developed gradually with advancing experience. In this respect a comparison of the present boat-type with older types may be of some interest. In Mrs. Barrow's book, Three Years in Tristan da Cunha (1910), the illustration facing p. 236 presents the framework of a boat from the time about 1906—09. This boat shows some characteristic differences from the present type. The midship section is obviously much less full. Besides, there are three stringers instead of two, and especially the lower two are rather slender, thus differing greatly from the very solid stringers of the present type (see below).

Smaller boats, the so-called dinghies, are built 16—20 feet long. They are distinctly deeper and broader in proportion, and on the whole much fuller than the long boats. But otherwise they do not differ from the latter either in form or in construction. The dinghies are only used for fishing and for shorter trips to other parts of the island. For longer excursions, especially for their hunting expeditions to Nightingale or Inaccessible, the islanders always use their long boats, likewise when boarding a ship.

The construction of the Tristan boat in one essential point differs greatly from that of its European prototype. The sustaining members of the construction in the boat's sides are not the timbers as in most European boats of a similar size and type. These, as mentioned, are made of rather slender branches of apple-tree or willow which are bent to the wanted shape, and are obviously neither strong enough nor firm enough to carry the pressure of the water against the boat's sides. This pressure has in the Tristan boat been transferred to the stringers or strengthen-boards, which run lengthways along the sides of the boat from stem to sternpost, two in number on each side, and these, together with keel, stem, and sternpost, are the sustaining members of the construction. Great attention, therefore, is paid to the strength and durability of these strengthen-boards. They are always made of one length of board, and in the long boats they are frequently made of two or even three thicknesses (see fig. 72). The ends are mortised into the sides of stem and sternpost, and the junctions are secured with pitch. Further there is a chock or cleat which has been fitted in between the two meeting strengthen-boards to support them and keep them together.

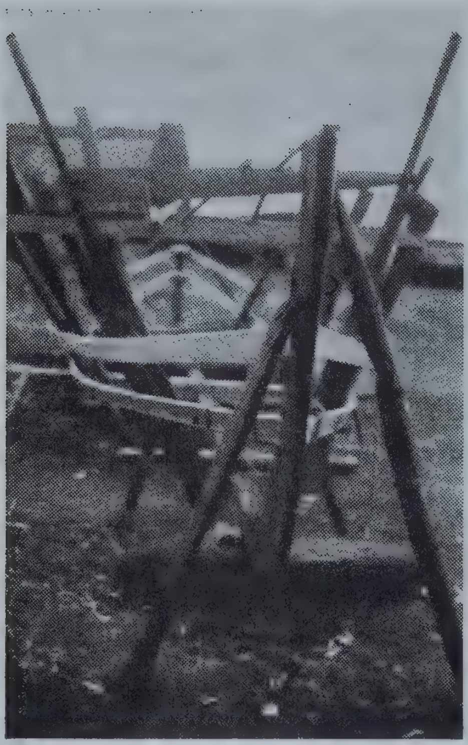

Fig. 67. Building a boat, I: The strengthen-boards have just been put in place.

The gunwale, too, is an important part of the construction and is rather strongly built. It consists of three members. What the islanders call the gunnel is a board running along the inside of the actual gunwale connecting and supporting the top of the timbers. Like the strengthen-boards it is made of one single length, the ends of which are mortised into the sides of stem and sternpost. Where the two gunnels meet against the stem they are supported by an acute-angled knee, the bow-knee. Outside this board is laid another board of the same breadth, the covering-board, and the top edge of both is covered by a third board or list just as broad as the total thickness of gunnel and covering-board, which is called the wash-board. These three boards encompass the upper edge of the canvas (see fig. 66 B), thus protecting it very well from wear.

Rowlock chocks, or rolly-gears, are placed on the inner side of the gunnel and fastened with bolts. There is one rolly-gear abaft of each thwart, but on alternating sides; the foremost rolly-gear is always on the starboard side. The hole for the rowlock or rolly is secured by an iron binding let into a wooden top-plate of the same thickness as the wash-board. This top-plate covers both the chock itself and the adjacent part of gunnel and covering-board, thus replacing the wash-board, which is discontinued here.

A transverse propping of the boat is provided by the thwarts. These rest firmly on the upper strengthen-boards and are connected with the gunnel by solid knees. In the long boats there are 6 thwarts, and the dinghies have 3 or 4, according to their size. A solid plank is placed across the middle of the two — or in the long boats usually three — foremost thwarts in the direction of the boat's length. This is the mast-thwart. There is a hole through it for the mast, the mast-hole.

The timbers, as already mentioned, have lost their original function as sustaining members of the construction. Nevertheless, they are very important as the athwartship members of the framework which supports the canvas. The branches from which they are made are usually split once, and roughly flattened on both sides with an axe. Of course they are selected as streight as possible, but quite streight branches of apple-tree

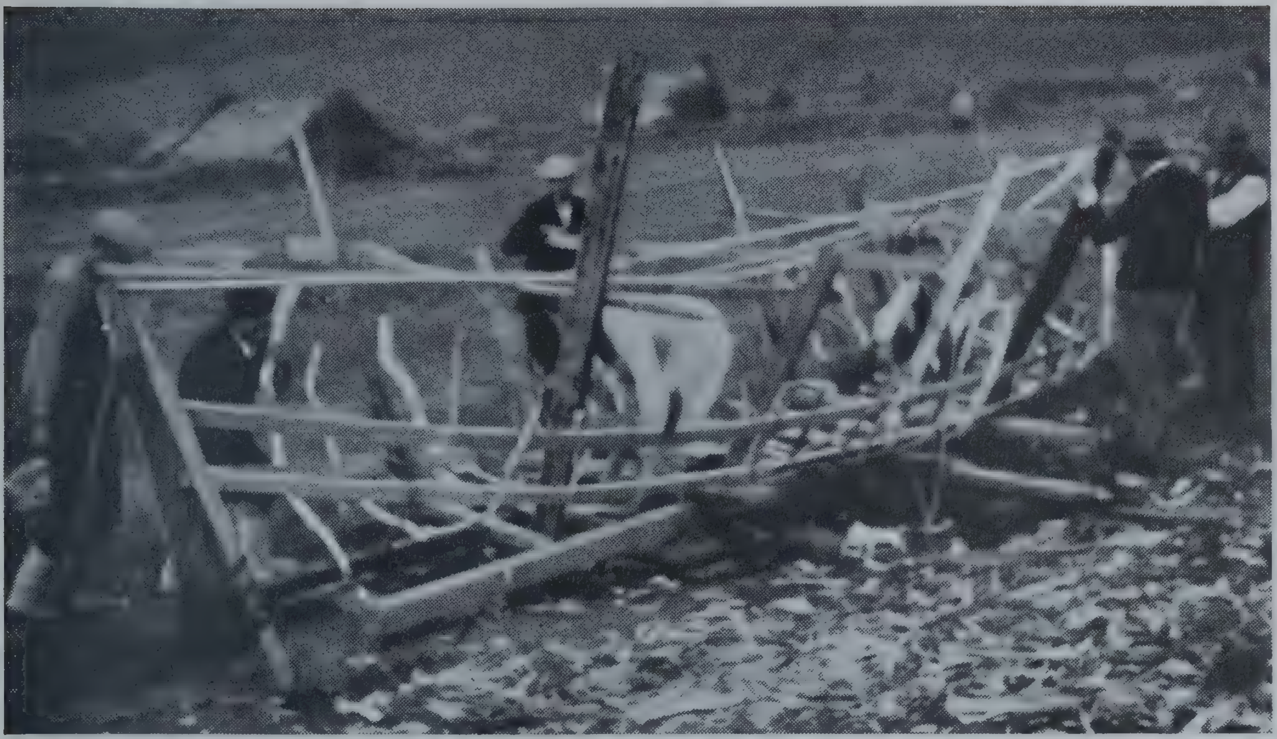

Fig. 68. Building a boat, II: Bending timbers. The frames are still in.

and willow are naturally hard to get, and consequently the timbers are mostly of a somewhat irregular shape. They are not made of one piece from gunnel to gunnel, but run separately on each side from the top of the keel to the inner side of each gunnel. However, they are always placed in pairs in such a way that the ends of two opposite timbers rest side by side on top of the keel (see fig. 70). They stand rather close, the distance between each pair being little more than 6 inches on an average.

The fastening of the timbers to the keel is secured by means of a keelson, what the islanders call the pommissar.[1] This is remarkably solid and consists of a long fourquarter log which is placed on top of the timbers and bolted to the keel with through-going bolts. The step of the mast is found in this member vertically below the mast-hole. The pommissar, thus, also functions as a mast foot.

The lengthways members of the framework are called slabs, and consist of long, narrow, and comparatively thin boards or ribs which are nailed to the timbers on the outside. These form the immediate underlayer for the canvas. The latter is stretched each side separately, and is fastened to the sides of keel, stem, and sternpost, and to the outer side of the gunnel by means of tacks. The fastening is everywhere well

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[1] This is an attempt at spelling the word which is pronounced with a double stress, thus 'pɔmi'sa.

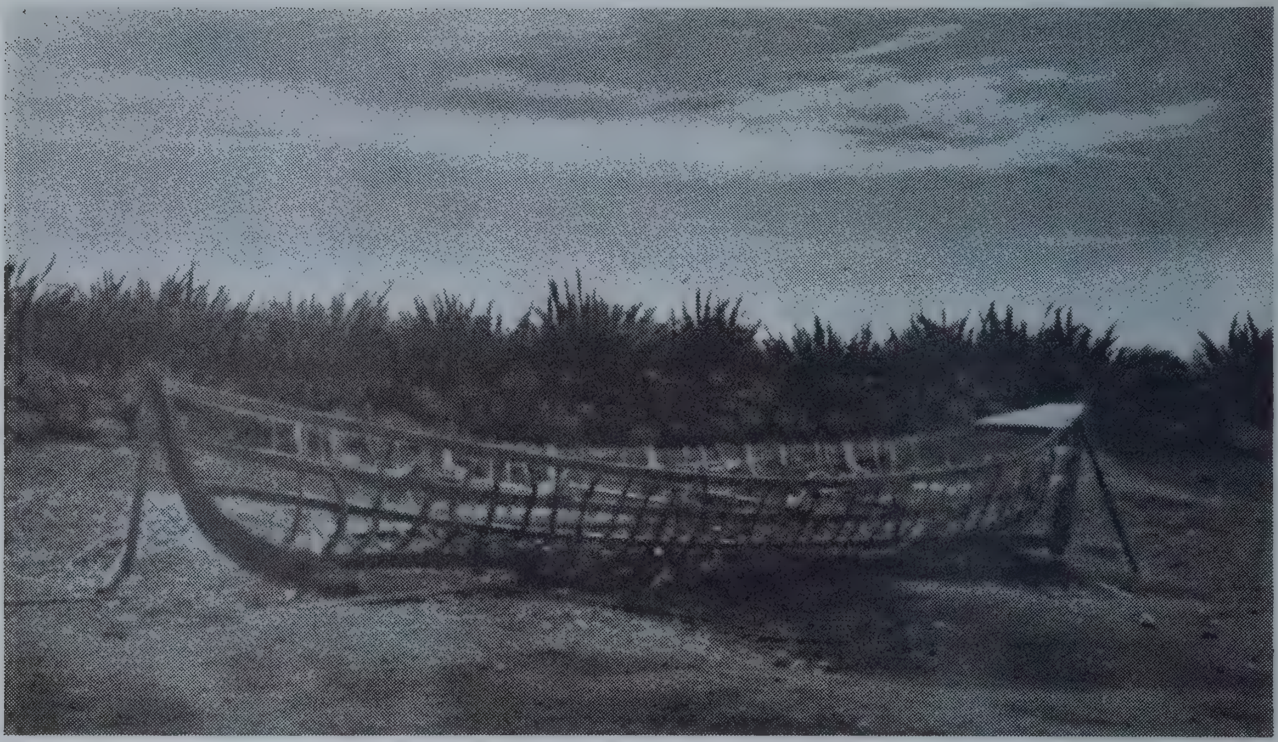

Fig. 69. Building a boat, III: The thwarts have been put in, and the frames removed.

protected. The upper edge, as mentioned, is completely encompassed by gunnel, covering-board, and wash-board. Against the keel the edge of the canvas is covered by a list, and against stem and sternpost by hoop-iron, or hynes. Before the canvas is stretched on it is oiled on that side which is to be the inside. After it has been fixed on it is painted with one or two coats according to the quantity of the available paint. To protect the canvas from wear, under the bilge of the boat there is a narrow board or rib, 3—4 feet long, the so-called bill-board. The boat rests on it when laid over on the side or when blocked with stones to stand on its keel.

There is no cohesive lining of stem, keel, and sternpost. But the lower part of the stem and the foremost part of the keel, which is the most exposed part of the boat when landing, is protected by a hyne. Likewise under the end of the sternpost and the rear part of the keel there is a hyne which projects beyond the rear edge of the sternpost. Its function is to prevent blades and stalks of the kelp from slipping into the narrow space between sternpost and rudder.

At both ends of the boat there are short decks, or rather shelves, which the islanders call head-chease and stern-chease respectively. The stern-chease consists of two shelves, one above the other. The upper shelf rests on top of the gunnel and replaces the wash-board towards the stern. The aftmost plank of the shelf projects on the port side, thus forming the so-called steering-gear on which the steering oar is laid and fastened by a piece of rope through two holes, one in the projecting end of the plank and one in the sternpost. The lower shelf of the stern-chease rests on the upper strengthen-board. The head-chease is a single shelf in the bow of the boat which likewise rests on the upper strengthen-board.

The ceiling consists of long ribs placed on top of the timbers in the boat's length direction. They cover the bottom of the boat, and, besides, there is one rib running along each side between the two strengthen-boards.

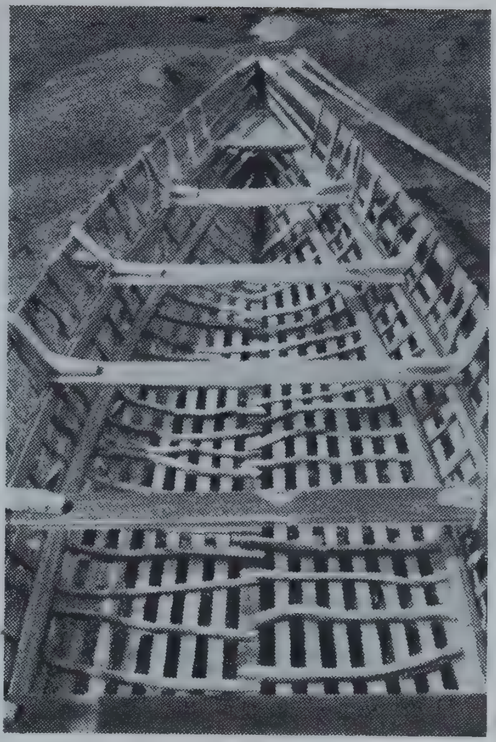

Fig. 70. Building a boat, IV: Slabs have been put on.

The painting of the boat is a very important matter. The paint proofs the canvas and tightens seams and fastenings, whilst it also protects canvas as well as woodwork aginst corrosion from sun, wind, and sea. The boats may be painted in any colour available, but white is preferred. Very characteristic is the streak, a broad band painted along the boat's sides just below the covering-board tapering evenly towards both ends. It is usually painted in a darker colour than the rest of the boat. The gunwale, then, is given a third colour, preferably of a shade intermediate between the main colour and the colour of the streak. The colours preferred are white for the boat with black streak and blue gunwale. (When I visited the island, none of the boats had this ideal combination of colours.) The inner of the boat is unpainted except for the upper part from the wash-board down to the upper strengthen-board, which is usually painted in the same colour as the gunwale.

When building a boat, of course, the islanders use no drawings of any kind. They have a few fixed measures with regard to the length of the boat and its breadth in various part. But otherwise everything is done by the eye and by fitting the parts together. The tools are naturally few, and the simplest possible. Axe, knife, saw, hammer, and foot-rule are their facilities, besides a small plane for a rough trimming of flats and edges.

The building always starts with the laying down of the keel to the length required in each case. It is laid on planks on the ground. Then

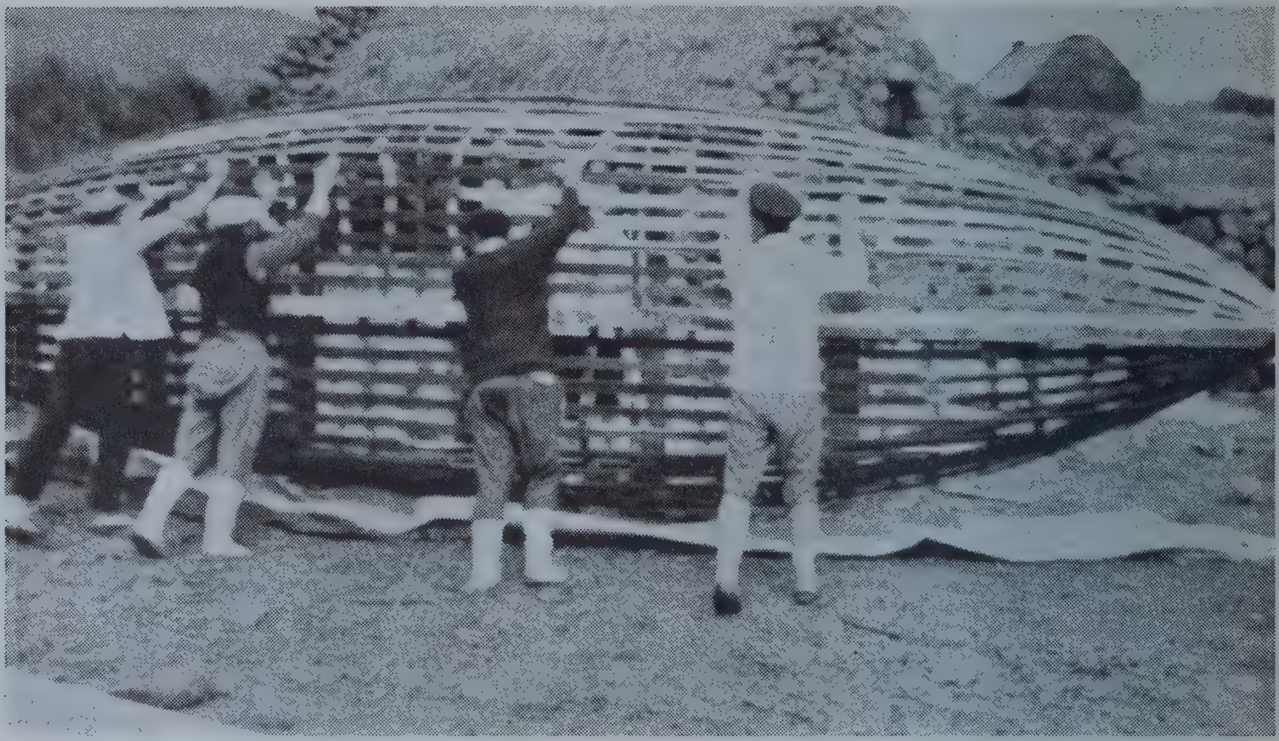

Fig. 71. Building a boat, V: Ready for the canvas.

stem and sternpost are raised, provisionally supported by sticks, and a number of transverse frames are put up on top of the keel. These frames have different settled measures according to their position in the boat. Thus the midde frame in a 26-foot long boat should measure 5 feet at the bottom and 7 at the top. These frames form the provisional support of the strengthen-boards, which are put on next (fig. 67). After that, the next thing to be done is to bend timbers. These are roughly fashioned with an axe and heated by boiling in a large oil-drum. They are then put in place. The lower end is laid on top of the keel, and the timbers are bent over the srengthen-boards (see fig. 68). In this position they are tied up by means of strings from their upper ends to a list on top of the frames. When all timbers have been bent in place, the gunnel is laid on and keeps them in the desired position. Then the thwarts are put in, and now the sustaining construction of the boat is really finished (fig. 69). The frames are taken out, and the turn comes to slabs, ceiling, canvas, and all the rest of the outfit.

When building a new boat the islanders frequently use the material of some old boat which has fallen so much out of repair that it can no more be refitted. Such a boat is always very carefully taken to pieces with the least possible damage of the material. Even nails, which are used in large quantities in these boats, are, carefully gathered and straightened for later use. Frequently the building of a new boat is no more than a complete rebuilding of an old one, with new timbers and knees and possibly a few other members if the necessary material is available.

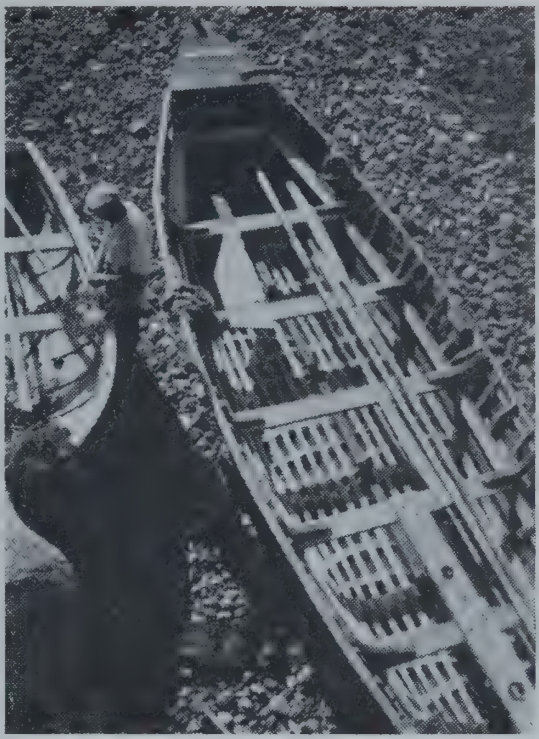

Fig. 72. Long boat. The two mast-holes show that the mast-thwart has been used in another boat before. (To the left: one of the boats brought by the Expedition.)

The boat is propelled by oars or sail. There are always as many oars as there are thwarts in the boat, namely 6 in the long boats and 3 or 4 in the dinghies. The oars rest in loose crutches (rollies) of the same kind as used in life-boats etc. They are rather long, and the shank reaches nearly across the whole breadth of the boat, so that the rower handling a starboard oar sits in the port side of the boat, and *vice versa*. Frequently, however, the islanders stand in the boat when rowing, then always facing the stem, thus pushing the oar instead of pulling it. The technique of rowing is characteristic by its quick sudden strokes letting the oar-blade remain only a very short time in the water for each stroke. This peculiar technique has probably some connection with the kelp, whose long leaves cover the surface of the water round the island. This quick stroke obviously reduces the chance of the oar being stuck in the kelp. Sometimes this happens nevertheless, and then the rower must quickly draw in his oar lest the long shank should throw him from the thwart with considerable force. An expert rower can do this without breaking time with the others.

When sailing the Tristan boat carries two sails, a fore-and-aft main sail and a stayforesail, what the islanders call a jib. The main sail was formerly a lug-sail, and the present type of sail is obviously a local development of this. It is triangular in shape — for this reason the islanders call it a leg-of-mutton sail as distinct from the lug-sail—and the yard being slung almost vertically has been transformed into a kind of gunter attached to and supporting the upper part of the inner leech, or foreleech. This gunter, whose island name is gaff-boom, is slung at the middle or at about a third of its length from the lower end, thus extending by ½ or ⅔ of its length above the top of the mast. The halliard, or hallion as the islanders say, runs on a rowel in the top of the mast and is made fast round a thwart abaft the mast. The middle and lower part of the inner leech is attached to the mast by means of sliding mast-

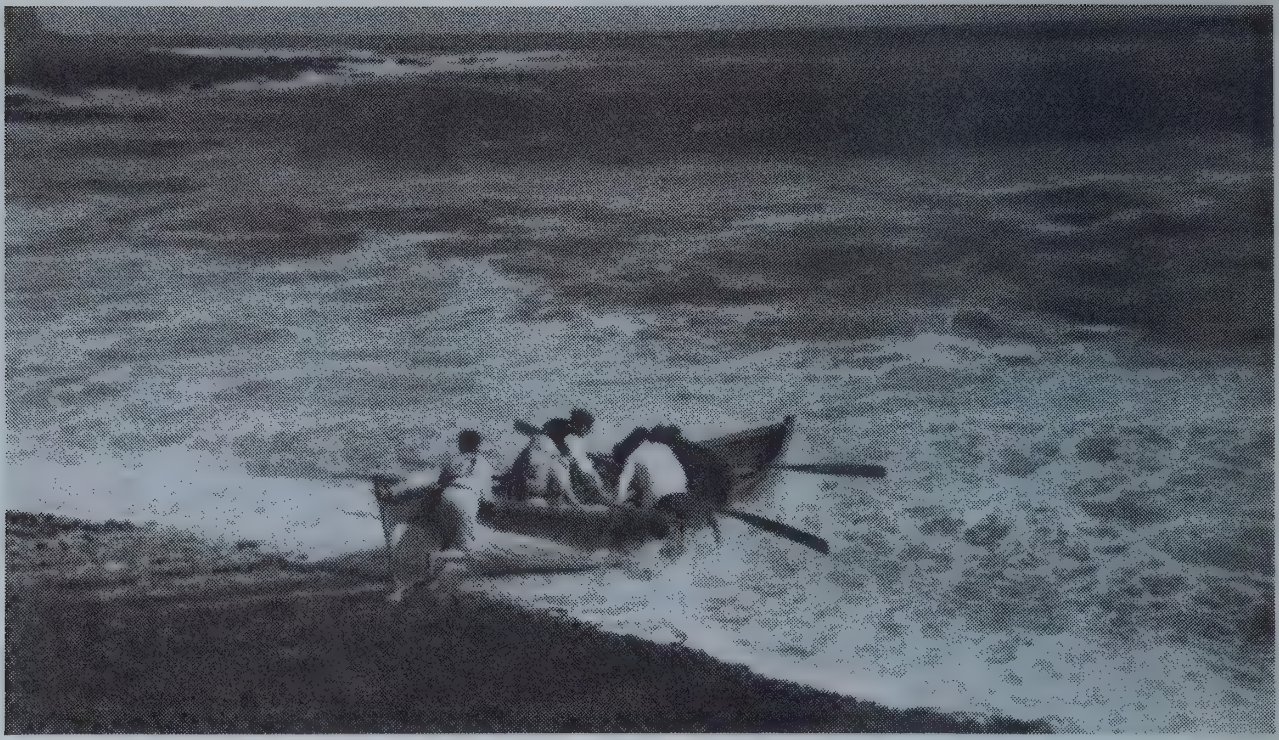

Fig. 73. "Show off!" Dinghy being launched.

hoops of wood, hanks as they are called, and in the lower end it continues into a tack, which is made fast round the mast-thwart. The sail is extended by means of a boom. This is not really a boom, but a kind of long sprit which is fastened at one end to the outer corner of the sail and at the other end in a becket laid round the second thwart abaft the mast. The boom is so long that with tightened sheet it would reach a couple of feet abaft the stern. The sheet is tied round the boom by means of a half hitch some distance from the outer end of the boom, runs through the hole in the top of the sternpost, and is made fast on the weather side to a cleat (cleak) on the inner side of the gunnel. When the boat is running before the wind with a large sheet the boom is likely to be lifted too high from the pressure against the sail, whereby the sail is not very well spread. To prevent this the boom is sometimes tied down to the gunwale by means of a rope passed round the upper strengthen-board. By light wind the same effect is obtained by one man sitting on the boom.

The mast in the long boats may be about 19 feet high, but in the dinghies it is usually lower in proportion. It is naturally loose, and is lowered when the boat is rowed. It stands streight, or possibly slightly raking, through the mast-thwart into a step in the pommissar. It is only supported by a single backstay which stretches from the top of the mast to a place on the weather side of the boat a little abaft the mast. This backstay is provided in the upper end with an eye which is slipped

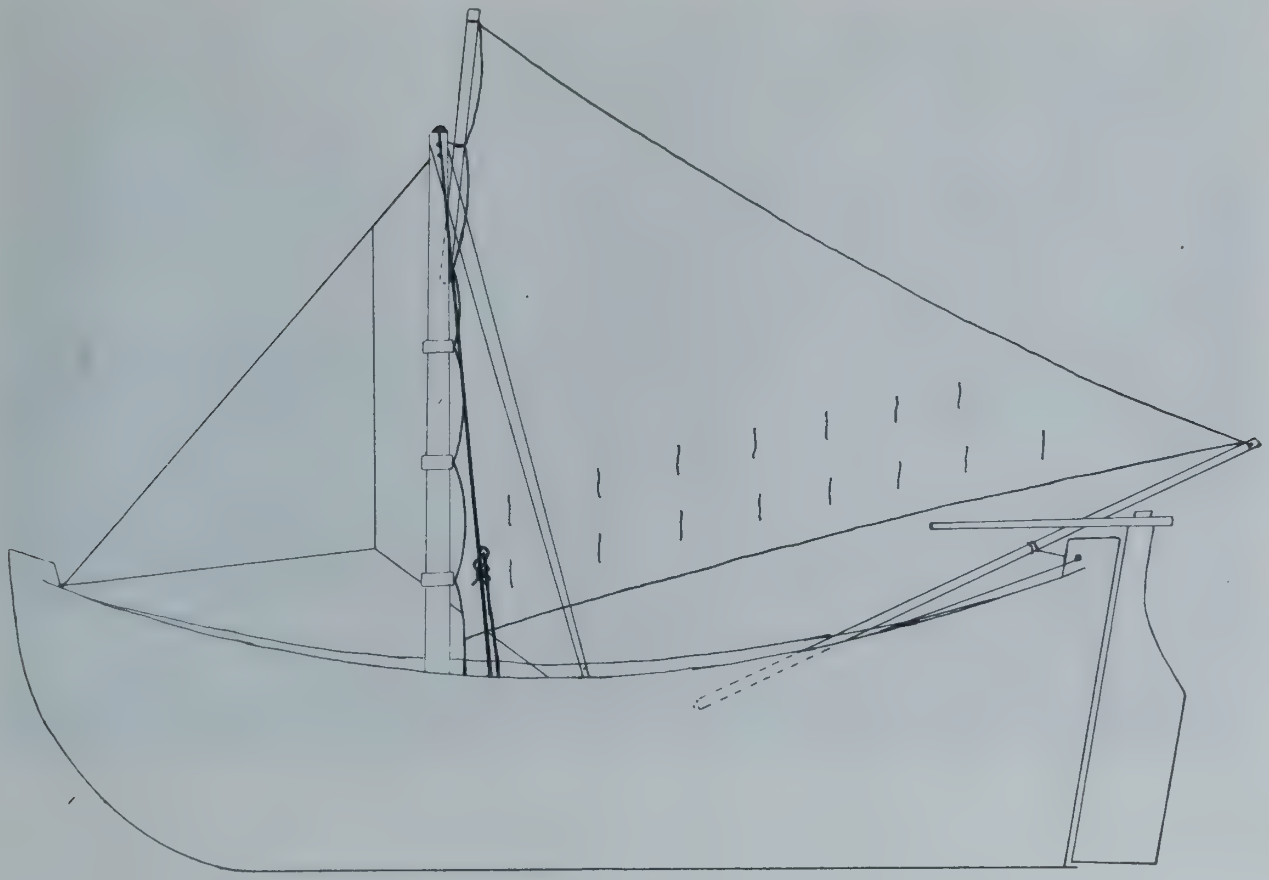

Fig. 74. The rigging of a dinghy.

over a pivot on the top of the mast. The other end is passed round the upper strengthen-board and then through an eye with a thimble a little higher up in the backstay itself, where it is made fast with half hitches.

There is no actual stay to the mast. But, of course, the foreleech of the jib functions as such, and is also called the stay by the islanders. It is simply stretched by the jib hallion, which runs on another rowel in the top of the mast and is made fast round a thwart. The jib sheet is made fast round some timber. The jib is practically only used when sailing with the wind on the beam, and some boats have no jib at all.

The sails are usually made of real sail-cloth. In the dinghies, however, they may sometimes be patched up from various pieces of cotton, print, blankets, etc., thus forming a varicoloured patchwork.

The spread of sail is quite large, especially on the long boats. The main sail has approximately the shape of an isosceles triangle being about 7 m high at the mast and about as broad at the sail-foot. Thus the spread of the main sail alone may be estimated at about 24 m². The dinghies have a proportionately lower rigging, and this gives the main sail a peculiar shape running out into a long taper aft (see fig. 74). In the long boats, more seldom in the dinghies, there are usually two reefs. When reefing, the sail is lowered proportionately, and the halliard is tied on to the gaff-boom in such a way that the latter is slung at a

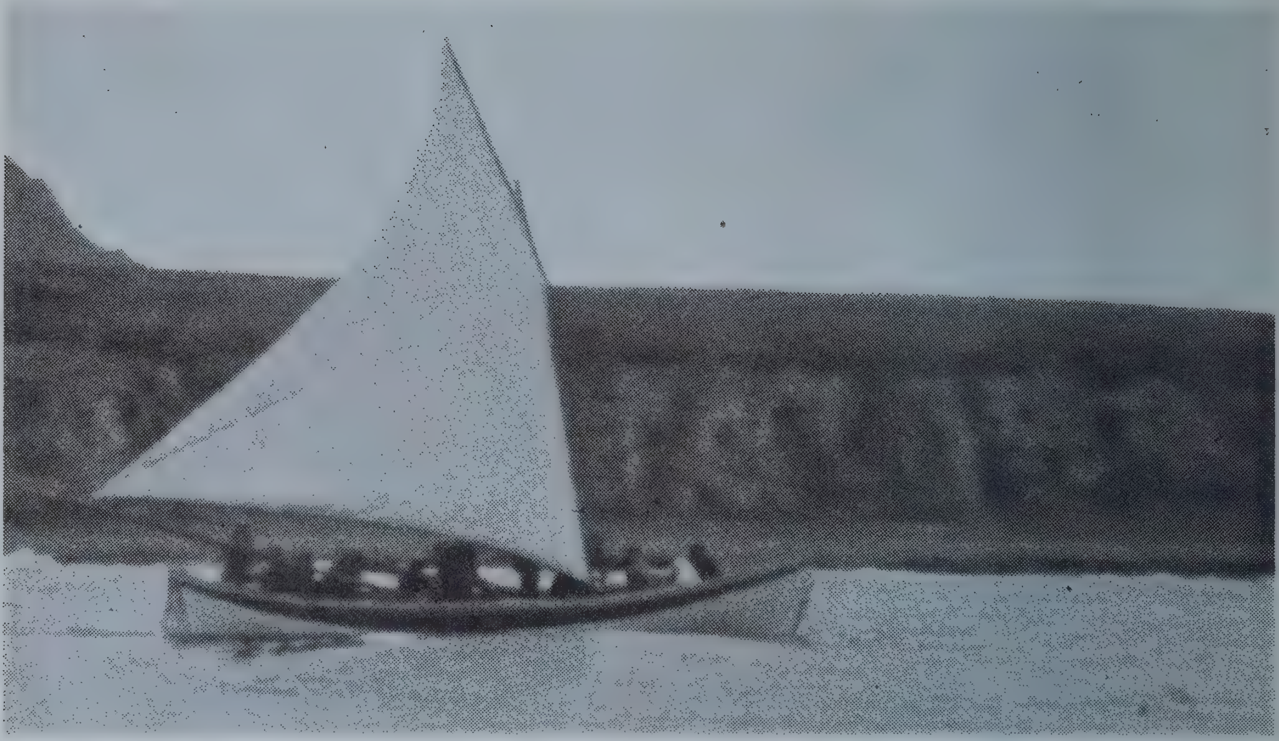

Fig. 75. Long boat under sail.

higher point than usual. On account of the peculiar shape of the sail a reef taken in means a comparatively large reduction of the spread of cloth. A quick reduction may also be obtained by lowering the sail a little, and in squally weather, especially when passing off large gulches which may carry heavy gusts down the hill-side, one man always holds the halliard in his hand, ready to lower the sail.

The Tristan boats are very good sailers for a leading wind. With a favourable wind they usually make the distance from Little Beach to Sandy Point in one hour, which means a speed of 6—7 knots. For sailing on a wind, however, and especially for tacking they are quite useless in the rough waters round Tristan da Cunha. In the first place it should be remembered that near Tristan da Cunha there is nothing but the open sea, and the boats being open they would soon be filled with spray when driven hard against wind and sea. This, of course, to some degree is even the case when the boats are rowed against a rough sea, and many an attempt at urging one of these boats against a too heavy swell has ended with an emergency landing on the nearest beach. Besides, though it may be possible by careful sailing to run the boat in a steady course a few points up to the wind, the way in which the boat is rigged precludes the necessary working of the sails for tacking. As a matter of fact, the only way in which the islanders can shift the main sail over on the other tack is to take it down; the sheet is taken out and passed the other way through the hole in the sternpost, and the backstay is

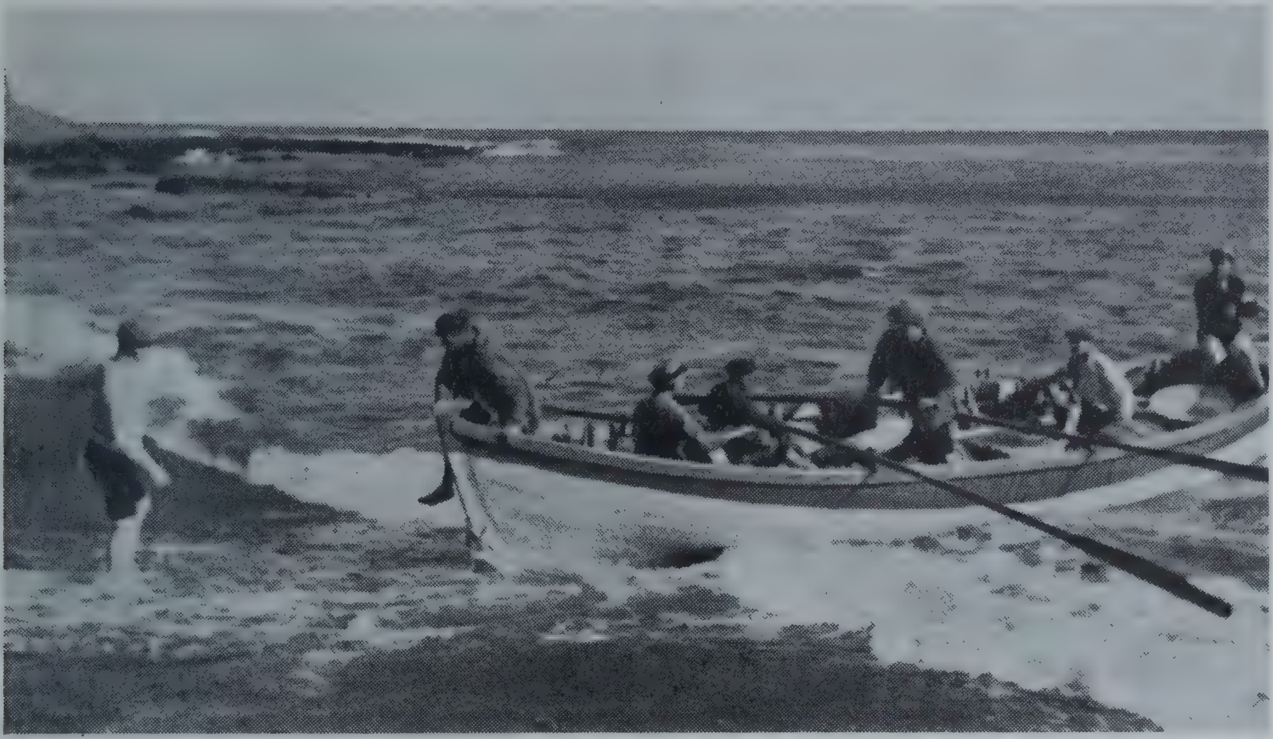

Fig. 76. Long boat landing.

shifted over to the other side. Then the sail may be hoisted again. For these reasons the day for any planned tour by boat must be chosen, and a careful judging of wind and sea must be made beforehand. It must be a "day", as the islanders say. And they always go with the risk of being delayed for several days and even for several weeks, in expectation of a favourable wind and sea to go home, though the most distant place to which they may be gone, namely Nightingale, is only three hours' sail from home.

When landing a boat, sail and mast are taken down, and the rudder is taken off and replaced by an oar which is tied on to the steering-gear. The bow-rope, which is made fast to an iron ring in the bow, is made ready; in the long boats, especially when they are heavy laden, it is usually shifted over to a hole in the stem just above the water-line. Only the two or four foremost oars are used to move the boat slowly towards the beach in expectation of a "smooth time", while one or two men sit in the bow ready to jump out with the bow-rope. When the right moment has been chosen, the boat is brought into the breakers by a couple of quick strokes, and as soon as it strikes, every one jumps out into the water to hold it against the back-surf. The only man remaining in the boat is the man with the steering oar, whose task it is to keep the stern straight against the surf lest the boat should be thrown on its side and swamped. Now the boat is taken as quickly as possible out of reach of the surf. If it is heavy laden, the next breaker is awaited and will help to carry it further in, and eventual helpers on the beach will run up and pull the bow-rope. In emergency landings the islanders sometimes have to cut large holes in the canvas to let out the water because the drainage hole alone would not let it out quickly enough.

There is no boathouse on the island, the boats being constantly left in the open air. Near The Bank just above Little Beach, however, well out of reach of the surf, there is a place called The Boathouse by the islanders. This is a depression in the ground which affords fairly good shelter from all winds, and here the boats are kept when not in use. That is to say, they are usually left on the beach, blocked up with stones under the bilge. Only when the weather type is of a kind that a heavy swell may be expected, the islanders take steps to bring their boats in safety by dragging them up the rather steep piece of road from Little Beach to The Boathouse. Sometimes they have to get up in the middle of the night to do so. On one occasion they lost nearly all their boats because the swell came up too quickly during the night. All the long boats and many of the dinghies have their settled places in The Boathouse, and these places are sometimes secured with stone walls as a further protection against the wind. In the old days there used to be real boathouses here,[1] and the stone walls are possibly remnants of these. The boats are laid bottom up and blocked with stones under the gunwales. They are mostly lashed down: two ropes are tied from the upper strengthen-board on to a couple of iron rings which are fastened to the ground by means of large bolts. Rudder and oars are placed on the ground under the boat, while sails are always kept in the houses.

When away from The Houses the islanders use a more primitive method in lashing down their boats. Two ropes are laid across the boat and tied on to four large pieces of wood — short logs or poles — which are covered with large stones. This lashing is a most necessary precaution lest the wind should turn over the light boat and damage it or even throw it on the sea.

In 1938 there were 5 long boats on the island and one more being built. The number of dinghies was probably 6—8. The long boats are all named, usually after some ship that has visited the island, such as *Daisy, Morning Star, Canton, British Trader.* Most of these are names of American whalers that visited Tristan in the beginning of this century — an evidence of the importance of this whaling traffic to the islanders. But when the names are still found on the boats in Tristan, it

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[1] What is shown in the background of the illustration facing p. 236 in Barrow (1910), is possibly one of these boathouses.

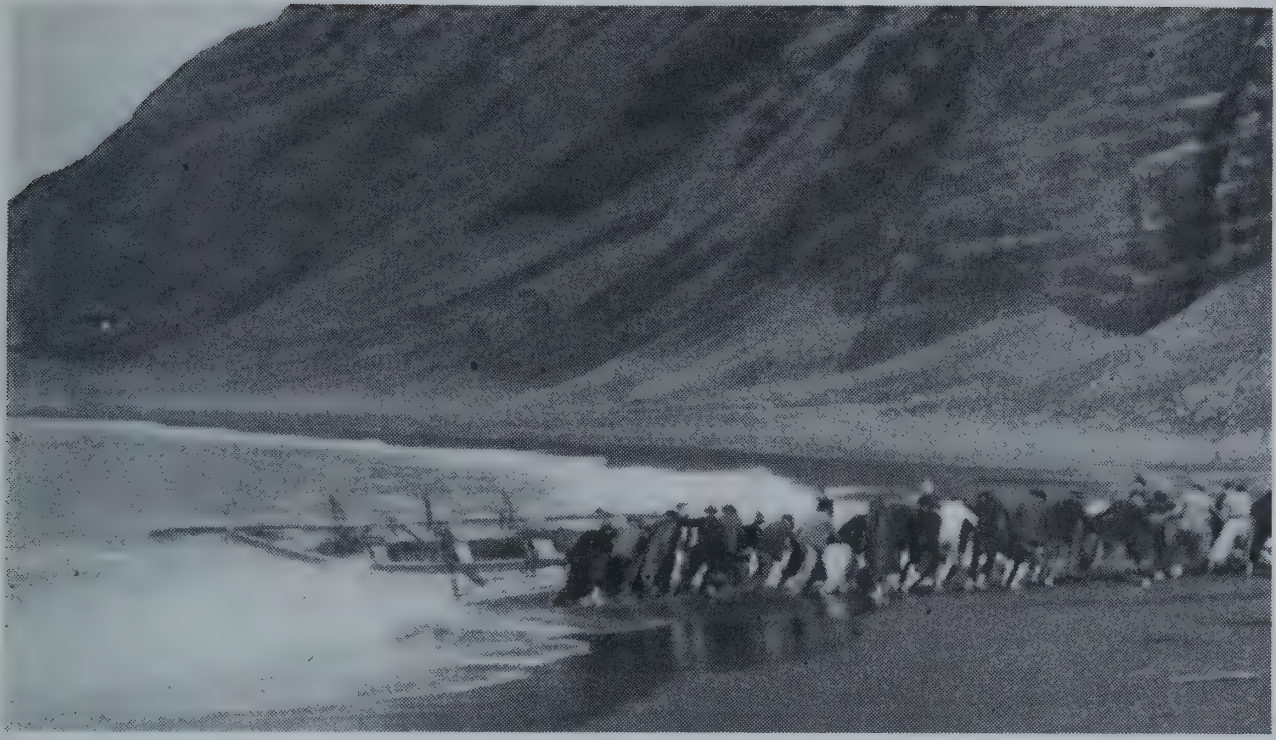

Fig. 77. Landing a life-boat.

does not necessarily mean that the boats are as old. For usually the boats are not renamed as often as they are rebuilt. The boat called *Morning Star* has recently been renamed *Lorna* by one of the missionaries; as the islanders said: "He probably had a girl of that name." The fifth boat is called *Long-Boat,* probably because it was the first boat to be built as long as 26 feet.[1]

Besides these home-made craft there are two life-boats on the island, which some years ago were presented to the islanders as a gift from The Tristan da Cunha Welfare Committee in Cape Town. Only one of them, however, is ever used, and practically only for the more "official" task to take the missionary and the "chief man" out to a visiting ship. It has its fixed crew, which has been appointed by the missionary. The reason why the islanders do not like to use these boats is that they are too heavy to be easily handled in the surf and on the beach. As a matter of fact, for the landing of one of the life-boats the assistance of the entire male population is required.

It is a matter of course that the Tristan islanders are clever boatmen, and handle their boats with great skill on the beach as well as on the sea. The boats, too, are much of a pride to them, and they like to have races to see who has the best boat. But they are very cautious on the sea and practically never take a chance. Especially on the long and more dangerous trips to Nightingale or Inaccessible they always take care to keep company in case something should happen to one of the boats. It is characteristic both of the islanders' skill and of their cautiousness in the handling of their boats, that with the exception of the life-boat disaster in 1885, which is still unexplained, there has been no loss of life on the sea among the inhabitants of Tristan, though it has happened that boats have been lost with their loads.

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[1] In former days, the boats were not made so long as that. Originally it seems that all of them were built, like the dinghies, for four, then for five oars, *i. e.* with five thwarts (see the illustration facing p. 236 in Barrow, 1910). It was not until about 10 years ago that the boats were built as long as they are now, with six thwarts and six oars.

Domestic Industry.

After Tristan lost its position as a provisioning station for sailing vessels that passed the islands on their way to South Africa and the Far East, the trade with the outer world, as we have seen, was much reduced and had to be put on another and less pretentious plane. What surplus the island could produce of potatoes and other victuals could no longer be disposed of, and as the islanders were still strongly dependent on supplies from outside, they had to find new means of paying for the articles which they could still get from crews and passengers on passing steamers. New articles of sale had to be produced that could be in some way attractive to the European visitor, and, besides, the production of what necessities the islanders could have from their own economic sources had to be increased.

This is the economic background of the development in later years of a domestic industry in Tristan da Cunha, which, though it is naturally very primitive, and with small potentialities, still plays a considerable part in the economy of the community.

It is a matter of course that from the very first beginning of the settlement the islanders had to make many of their necessities with their own hands. Taylor (1856, p. 84) reports that already in his day the men wore under shirts and drawers of wool which was spun and knit by the women. Mention has already been made of the production of moccasins for foot-wear, an art which seems to go back to the very early days of the settlement. We have also heard of the art of making slippers of Manila hemp, which is now a dying art. Otherwise there was probably a little sewing and patching of old clothes. In addition, the men had their joinery, which was quite an important trade in the old days when woodwork was more easily accessible than it is now. Thus Old Peter Green, as reported by his daughter Frances Repetto, had his own joinery shop near his house, quite well equipped with a joiner's bench and other tools. And quite good joinery work was produced in those days, mostly furniture such as tables, chairs, chests, and the characteristic wooden sofas which are found in all the older houses. (See *e. g.* the chest fig. 28.) It is even reported that a shipwrecked ship's carpenter, who is only known by the name "Norwegian Charlie", had a real lathe made, and many an old piece of furniture testifies by its turned legs to its origin, at least in part, from his hand. Probably the islanders entirely covered their need of furniture for their houses in this way.

In the old days, however, the domestic industry was only concerned with the production of necessities and commodities for the islanders' own use. Nothing was produced for sale. Now, on the contrary, a greater part of the domestic industry is concerned with the production of articles for sale. This change not only involved an increased production beyond the islanders' own needs, but also caused a change in the articles produced, the production being no longer adjusted exclusively to the needs of the islanders, but to an increasing degree to the demands of occasional visitors. In this respect the islanders have understood how to take advantage of the widespread and increasing pursuit of souvenirs in the modern world, and have adjusted their domestic industry accordingly. The visits of two or three tourist liners in 1927 and the following years may have stimulated this development. Hence the domestic industry is for a great part concerned with the production of such articles as may be of interest to visitors as souvenirs of Tristan, such as home-knit stockings and Guernseys, mats and caps of sheep-skin and penguins' feathers, ox-hide moccasins, model canvas boats, etc. Besides, of course, there is still the production of clothes and tools for the islanders' own use.

By far the most important domestic industry in Tristan da Cunha is that concerned with the utilization of wool, spinning and knitting. We have already referred to the great quantity of socks and stockings, pullovers and other kinds of garment produced by the islanders by knitting. I will now give a further description of the hand-work itself.

When a sheep has been shorn, the wool is torn up into tufts and "greased", *i. e.* the tufts are spread on a table, a little fat is poored over them, and the whole is mixed together. For this use the fat obtained from ox-hoofs is the best, but they may also use the fat which they extract from the shark's liver. Then the wool is carded in the ordinary way by means of imported cards.

The spinning is carried out on primitive home-made spinning wheels. These are of the simplest description. The base is formed by a rather solid plank, the socalled big-part, which rests on four legs. The legs are of unequal lengths so that one end of the plank is con-

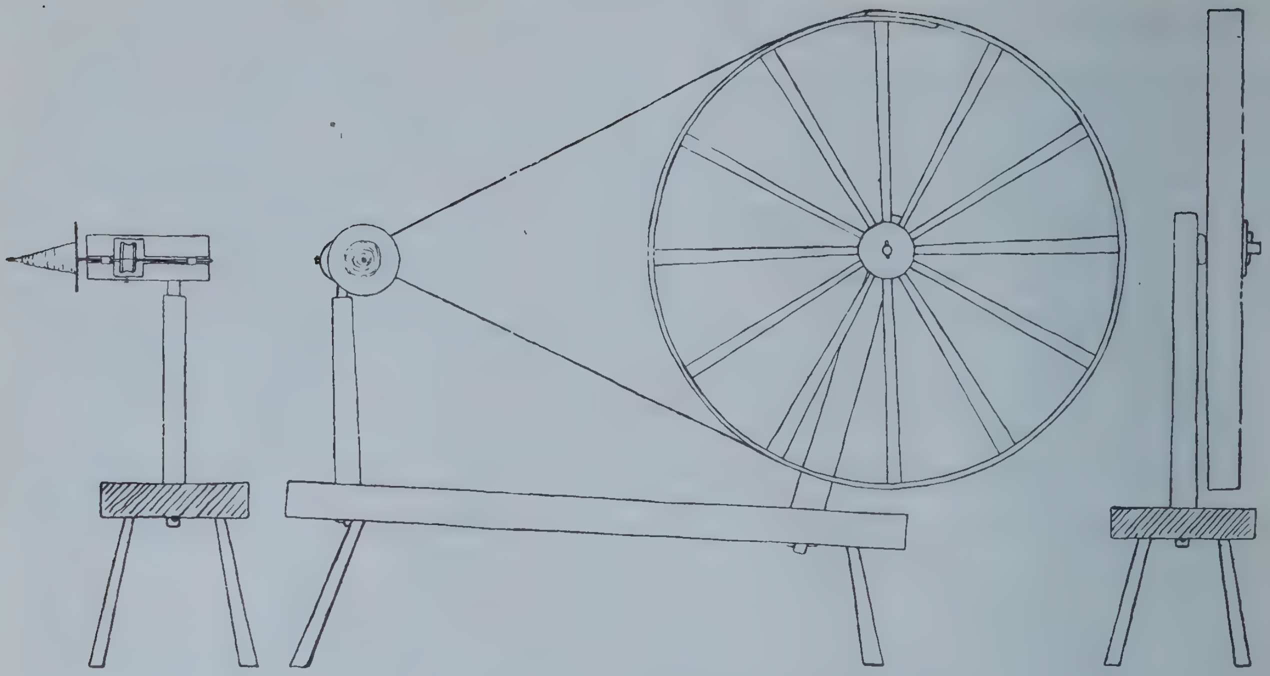

Fig. 78. Spinning wheel.

siderably lower than the other (see fig. 78). At each end the big-part carries a stanchion. The one stanchion which stands on the lower end of the big-part has an inclined position, and carries the large wheel which runs on a short axle or arm, projecting horizontally from the upper part of the stanchion.

The wheel may measure about one meter in diameter. It has usually 12 spokes which are mortised into a solid wooden nave; their thickness increases slightly towards the rim. The latter is made of a thin board which has been bent over the spokes and fastened to them by means of nails.

The other stanchion has an upright position. It carries a cylindrical wooden block which is placed horizontally on top of the stanchion. This is the so-called headen, which is the immediate support of the spindle. The latter is just a needle, usually a large knitting needle, which has been provided with a small wheel, the little-wheel as it is called. A circular piece of hide with a hole in its centre, through which a part of the needle is passed, forms a stopper for the thread. The edge of the little-wheel is concave and usually provided with a hyne, a protection of iron or brass; an ordinary thimble sometimes serves as a hyne. The headen has a groove in the direction of its length for the spindle with a larger notch for the little-wheel (see fig. 79). Two holes lead from the bottom of the groove crossways through the headen, and the spindle is kept in position in the groove by means of two narrow straps of hide, which are bent round the needle and drawn double through the holes, where they are fastened by means of cuneal pegs (see fig. 79 B). The driving

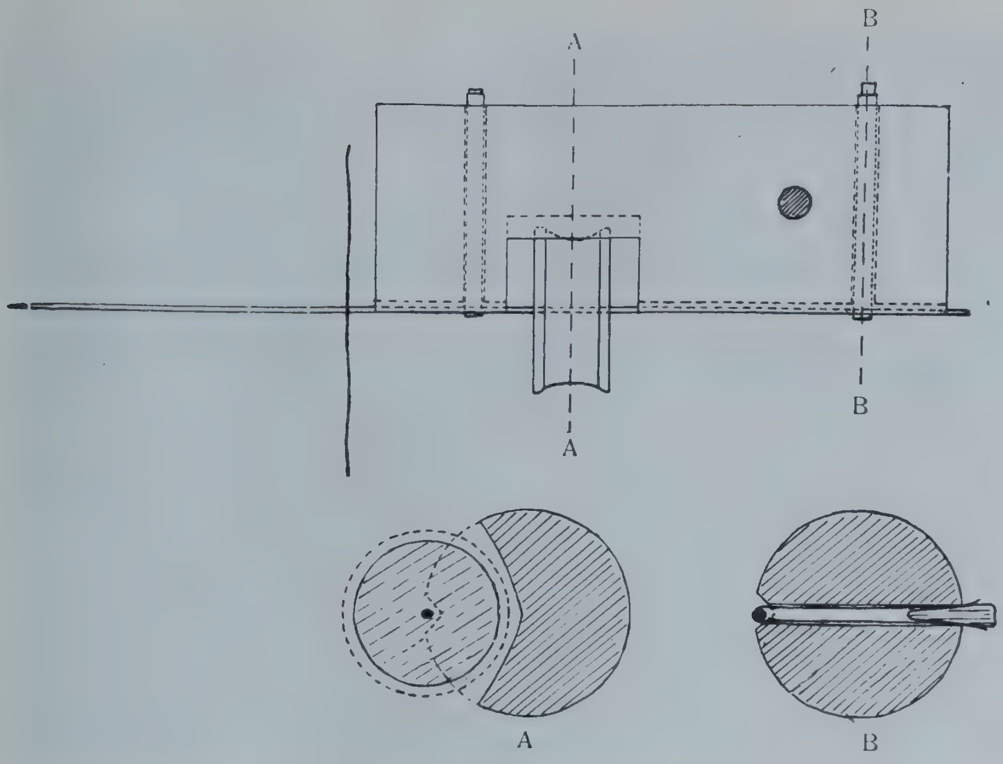

Fig. 79. "Headen" with spindle (from above).

band is a piece of ordinary string, the ends of which are linked together by means of two sewn loops which are interlinked.

When spinning, the large wheel is driven round by the right hand pulling the spokes while the wool is equalized to a smooth thread by the left hand and twisted by letting it slip over the point of the needle while the spindle is running. The wool is always left-hand spun and right-hand twisted, *i. e.*, when spinning, the wheel is driven in a clockwise direction; then the ready worsted is made by twisting together two threads the opposite way, the wheel being now driven in an anti-clockwise direction.

According to an island tradition the first spinning wheel that existed on the island was made by Charles Taylor, a man who arrived in 1838 and left with his family in 1857. This type of spinning wheel, however, is not a Tristan invention. It was probably a similar type of wheel that, in the 13th century, first replaced the distaff in Europe. In any case, this type was well known in Europe in the 16th and 17th centuries, and spinning wheels very much like the ones used in Tristan to-day may still be found in some country districts in Europe, and in certain places were still in use only some fifty years ago (see Hoffmann, 1942, p. 9 sq., cp. also Walker, 1940, illustration on p. 689). Even here the prototype of Tristan culture is an old and discarded form of European culture.

There is no preparation of the worsted after it is ready spun. It is neither washed nor artificially coloured, nor is it even bleached in the sun. It is left in its natural colour, which is white or brownish-white, sometimes with darker shades of light brown. There are a few black

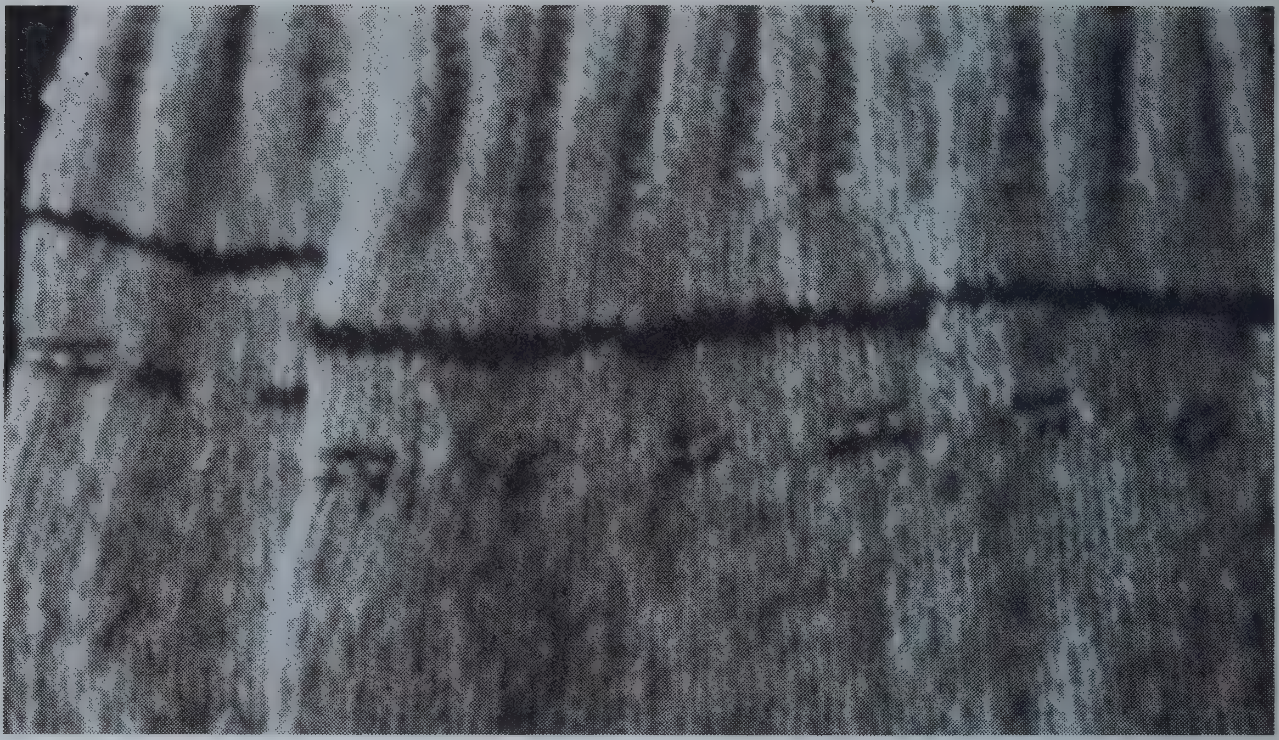

Fig. 80. Socks with one ordinary "mark", and one "false mark".

sheep on the island, and their wool is only applied in a mixed worsted, the so-called "pepper-and-salt", which is obtained by twisting together a black and a white thread.

Knitting, as we have heard, is the only way in which the islanders utilize their home-spun worsted. This womanly occupation is very popular and is cultivated with great zeal by all age-groups. You seldom see a woman without knitting in her hands, and even small girls often use their knitting needles with an amazing dexterity and speed. Most women take their knitting with them wherever they go, and whenever they are at leisure for a moment, sitting, standing, or walking, they take it out and knit. They hold their knitting needles in a way which is peculiar to us now, but which, I believe, was common also in Europe some fifty years ago, holding the needles like a pen (see fig. 12).

We have already heard of the great importance of knitting in the production of clothes on the island. The preponderating part of the products are socks and stockings, which are produced in great numbers, far beyond the islanders' own needs, although their wants in these articles are obviously great. Socks and stockings, in particular are important articles of export. Large quantities of them are sold on board passing ships by direct barter, and nearly every parcel sent from Tristan as a return gift to friends in England probably contains a pair of socks.

The socks are knitted in the usual way, round, with four needles. The upper edge is purled with alternating two plain and two close

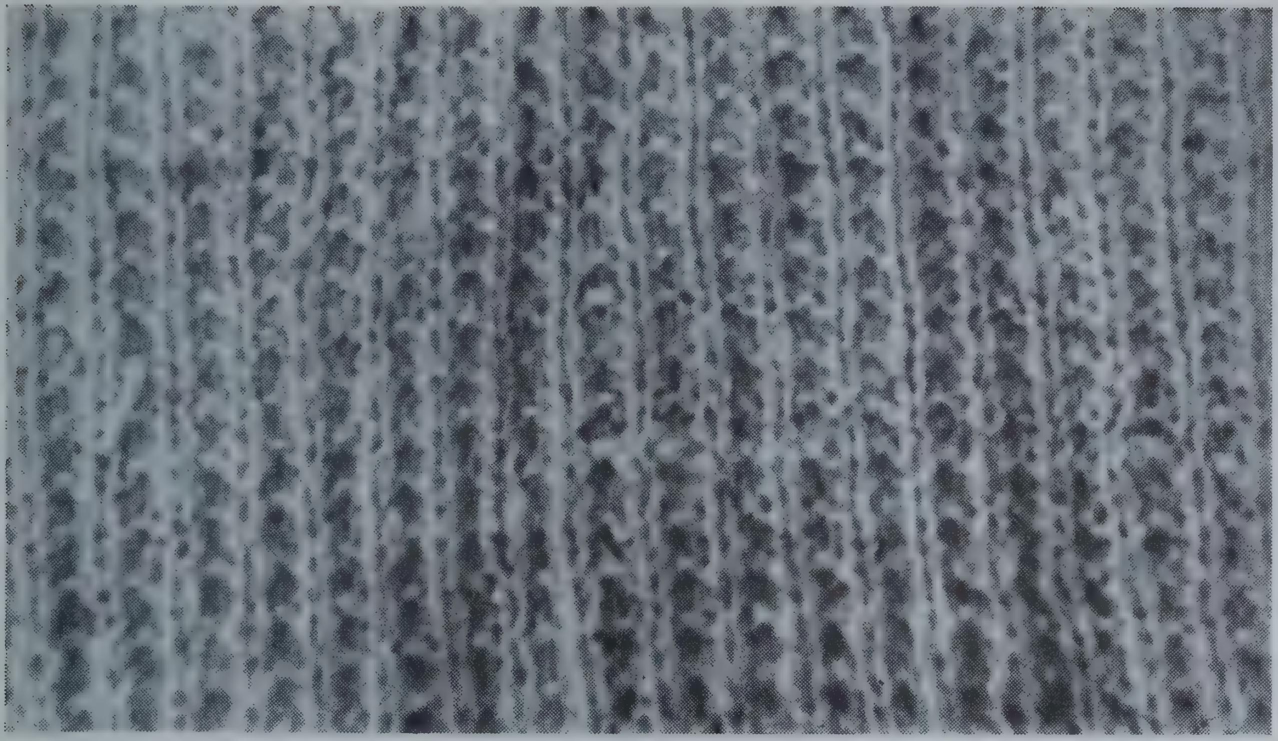

Fig. 81. "Step-stitches".

stitches. Just below this border are the characteristic marks, stripes of imported coloured worsted, up to four in number, and preferably of bright, clear colours, red, green, or blue (see fig. 14, 15). Hence the name marking-worsted of such worsted.

Pull-overs, or gansies, are also produced in great numbers, and are, certainly, a more valuable article of sale. These are prevadingly of very good quality, though, of course, there may be great differences in the quality according to the skill of the different manufacturers (cp. fig. 16 and 17). The pull-overs are usually without sleeves and rather long. At the bottom and round the openings for neck and arms they are regularly decorated with coloured stripes and borders; blue is the colour preferred for these decorations, but, of course, any colour available will do. Frequently the pull-overs have been provided with one or two patch pockets, likewise decorated with coloured borders (see fig. 16, 17).

Pull-overs are never knitted just plain, but are always given a certain pattern, produced by some regular alternation of plain and close stitches, which are the only knitting known on the island. The islanders have three different standard patterns apart from the ordinary plain knitting. The most common pattern is the one termed step-stitches by the islanders (fig. 81). This pattern is very commonly used in pull-overs (fig. 17) and other garments, and frequently it is applied also in children's socks and stockings (see the right pair in fig. 14). A quite common pattern is also the so-called honeycomb, called so because it

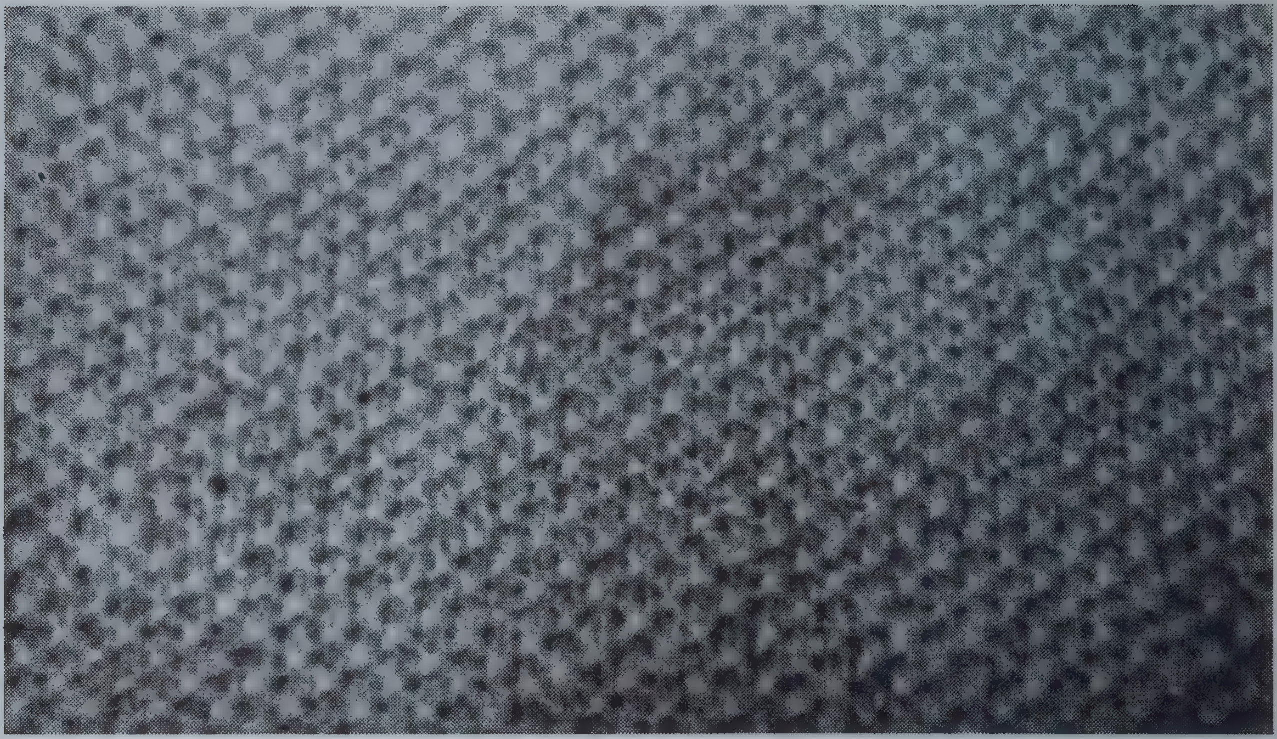

Fig. 82. "Honeycomb".

is not unlike the pattern of a real honeycomb (fig. 82). This pattern is also frequently used in pull-overs (fig. 16) and in different children's garments. More rare is the third pattern, called checks-board, obviously because it consists of large checks or squares. Actually this pattern was only seen in an old jersey worn by one of the smaller boys (fig. 83). But it was spoken of as one of the three standard patterns used in Tristan. The islander's strong adherence to these patterns is characteristic of the conventional character of Tristan culture. But, otherwise, in the production of knitted articles there is also a space open for the maker's free imagination to produce more complicated patterns after her personal taste (see fig. 84).

Crocheting is an art which is unknown to most islanders, and it plays no considerable part in the production of clothes in Tristan. Actually, this art is only known by two or three women on the island. It was introduced by a native of Cape Town who arrived and settled down in 1908, and she has had one or two pupils among the younger women. But though

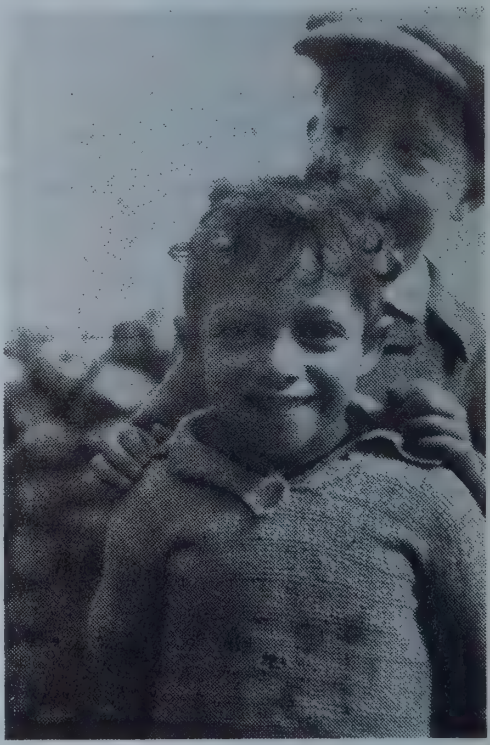

Fig. 83. "Checks-board".

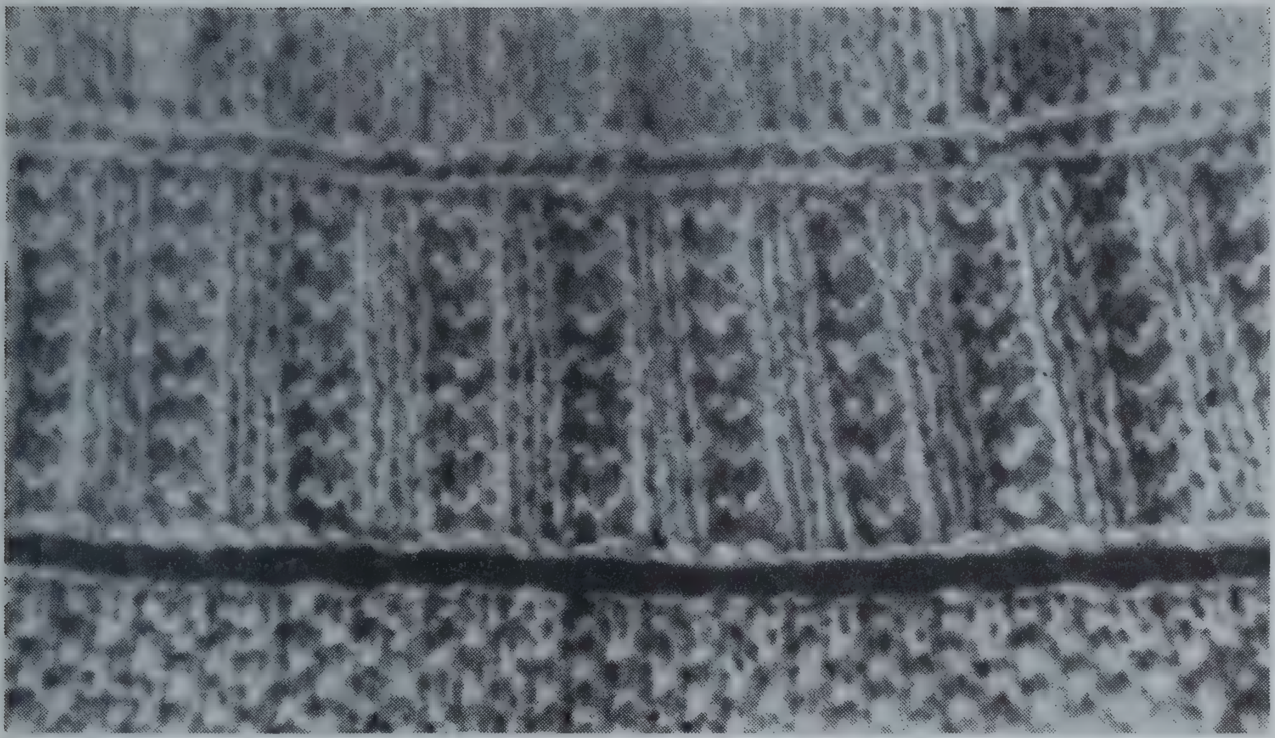

Fig. 84. Knitted pattern in lower border of girl's frock.

especially the pupils are very proud of their ability, no one else seems to be inclined to try to learn the art. The use of crocheting is in Tristan confined to children's garments, such as jackets, frocks, and stockings.

Weawing is unknown in Tristan da Cunha. Certainly, a couple of looms were recenty brought to the island by the resident missionary, but as there was nobody to teach the islanders how to use them they have been of no use to the islanders so far. So even they, like the two modern spinning wheels, are stoved away in the missionary's storehouse.

In the old days sewing seems to have played a negligible part in the domestic industry of Tristan da Cunha, especially if we compare with the present conditions. Women's cothes were then, like men's clothes, for the most part imported in a ready-made form, and there was probably no special Tristan style of dress either for women or for men, the contemporary European style being accepted without too many alterations. The sewing of those days, therefore, seems in a large measure to have been confined to patching and small alterations of old clothes. In addition, there was possibly the production of cappies for the smaller girls. Now, on the contrary, when the style of women's dress has been so highly conventionalized, sewing is a common female occupation, and the neat dresses worn by the women — especially on Sundays and other important occasions — give a very good impression of their skill in this respect. The sewing is done partly by hand, partly on machines, of which there are five on the island. These sewing machines, which are

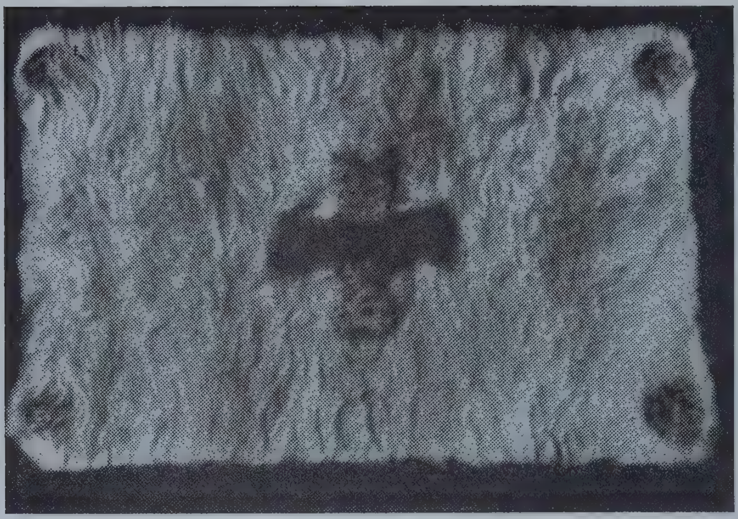

Fig. 85. Large sheep-skin mat (ca. 75 × 45 cm).

quite good and of a comparatively modern type — they were introduced to the island only some 14 years ago — are privately owned, and the owners never lend them out to others. But they willingly help their relatives and friends in sewing, taking their machines along with them to their houses and getting their food for the day in return.

In this connection we must also mention the sheep-skin slippers made by the women, and the ox-hide moccasins made by the men, which we have referred to above.

A branch of domestic industry in Tristan da Cunha which is of a more recent date is the production of mats, caps, and other articles of sheep-skin and penguin feathers. These articles, which are obviously original Tristan inventions, are exclusively produced for "export", and are never made use of by the islanders themselves. But they have come to play a considerable part in the rudimentary trade that is still kept up between Tristan and the outer world. Many of these articles are sold by the men on board passing ships, and — because the sewing of them is a womanly occupation, and any article is regarded as the property of the one who produces it — still more of them are sold by the women by "indirect barter", *i. e.* sent as return gifts to friends in England.

A sheep-skin mat is simply a piece of sheep-skin which has been cut to a rectangular shape. The size may vary between 75 × 45 cm and 25 × 20 cm, or even less. The wool is carefully washed, and combed out by means of a coarse comb, unless it is cut short, which is often the case in the smaller mats. Usually the mats are made of the skin of a white sheep, but completely black or even mottled mats may also occur. For decoration, in the middle of the mat and in each corner of it, there are sewn on tufts of short threads of many-coloured worsted. Sometimes there is also one such tuft on each side of the mat, or only on the two long sides. More seldom the middle tuft is replaced by a more ambitious decoration, *e. g.* a cross or other regular figure, made in the same way from worsted of different colours (see fig. 85). Small mats are as a rule edged and the under side lined with coloured cloth, usually cotton (fig. 86).

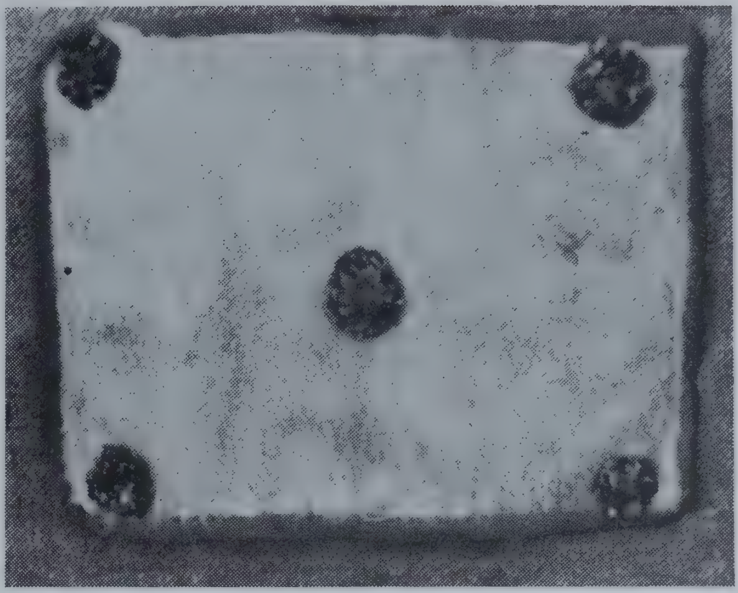

Fig. 86. Small sheep-skin mat with the wool cut short (ca. 30 × 25 cm).

The penguin mats are made of penguin's skin with the feathers on. Great numbers of penguins are killed every year for this purpose in April, when "they's done moult", and in the spring from July to November, the nesting season. The skin is prepared in the most simple manner. After it has been scraped with an ordinary knife to deprive it of any remnants of blubber and flesh, it is simply nailed on to a wall to dry in the sun.

There are different kinds of penguin mats. The most common are the tossel-mats. These are also the ones which are most highly valued by the islanders themselves. Firstly they "sell quite well" on board a ship, *i. e.* they are easily sold and satisfactorily plaid for. And, secondly, with their bright clear colours they appeal strongly to the islanders' own taste. These mats are made of mere head-skins edged by the bright tossels of long yellow feathers which the penguins have over each eye. These small skins — they are only about 5 cm broad and 10—12 cm long are sewn together in different ways. Most commonly the mats are of a circular shape with the tossels radiating from the centre. There are "single-row mats", with only one row of tossels (fig. 87), and "double-row mats", which have an additional larger row of tossels outside the first row (fig. 88). But mats of a rectangular shape also occur (see fig. 89). One-piece mats of an inferior kind are made from ordinary penguin's skin, preferably white (from the bird's breast), or with black edges (fig. 90).

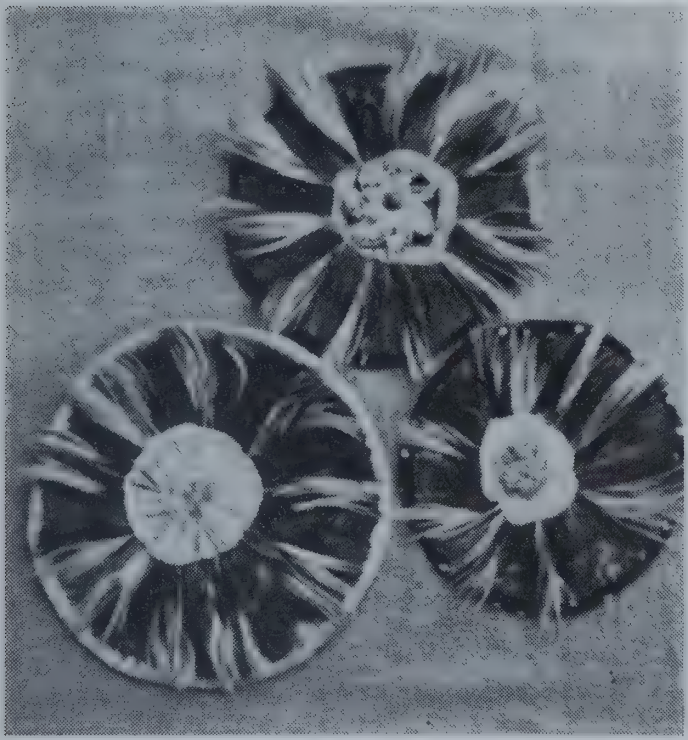

Fig. 87. Tossel-mats.

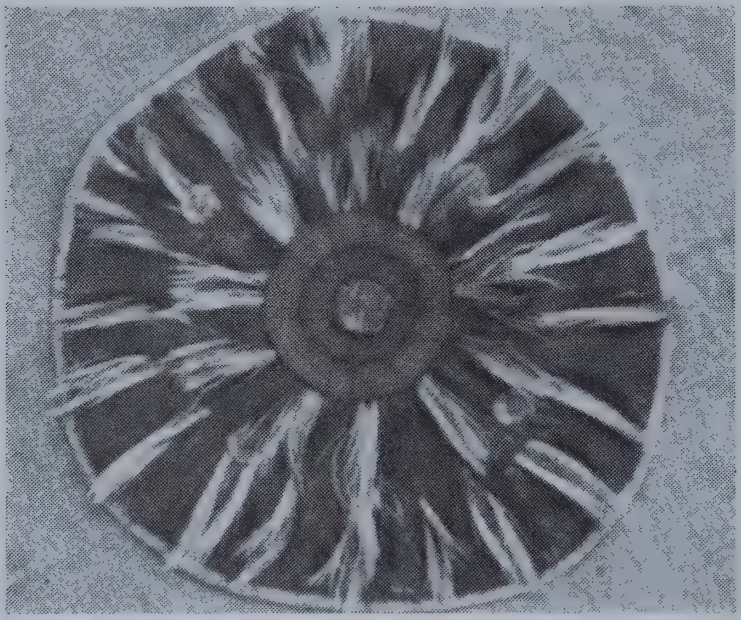

Fig. 88. Double-row tossel-mat.

The mats are always decorated by means of coloured ribbons, and though this branch of domestic industry is quite young, these decorations have already achieved a settled form — even here conventionalism in cultural forms has asserted itself. A circular mat is decorated in its centre by a large rosette. Bright red silk ribbon seems to be preferred for this use, but otherwise the rosette may be made of any kind of stuff, from velvet and cotton to crocheted flowers from an imported hat. The rosette is usually centred by a homemade button of some kind of cloth over a round piece of pasteboard, but is often also decorated in other ways, by beads or lace or an old brooch. The "double-row" mats mostly have four small rosettes at regular intervals on the seam between the two rows of tossels (see fig. 88), or the seam may be marked by a narrow silk ribbon. Also in the rectangular mats the transverse seams are marked or covered by coloured ribbons. Even these mats have a rosette of some kind in the centre. For the coarser mats of ordinary penguin's skin the decoration is left more to the maker's personal taste and facility, but even here the central rosette is obligatory, as is also the case in the sheep-skin mats.

All penguin mats are edged with coloured ribbons, preferably of red silk, and the under side is lined with some spare piece of print. Between the lining and the skin there is always laid a piece of thick, stiff paper cut to the shape of the mat. Its function is obviously to protect the lining from being infiltrated by eventual remnants of fat on the skin.

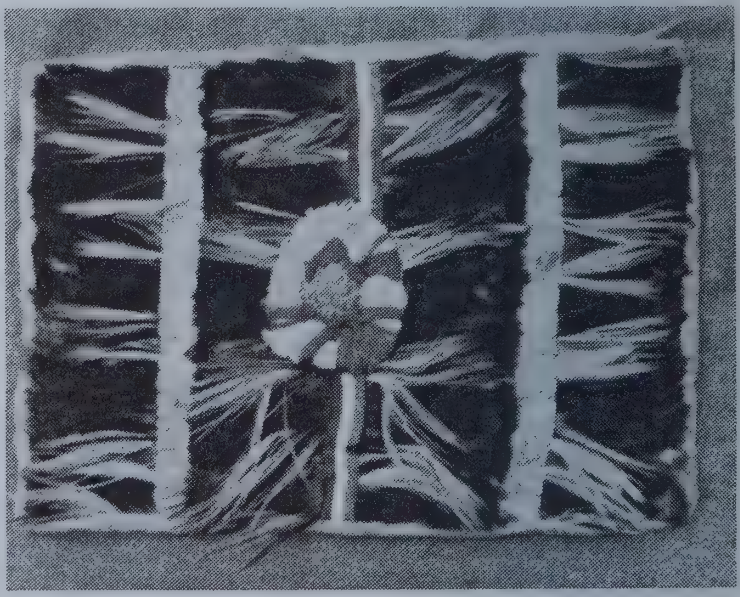

Fig. 89. Rectangular tossel-mat (43 × 30 cm).

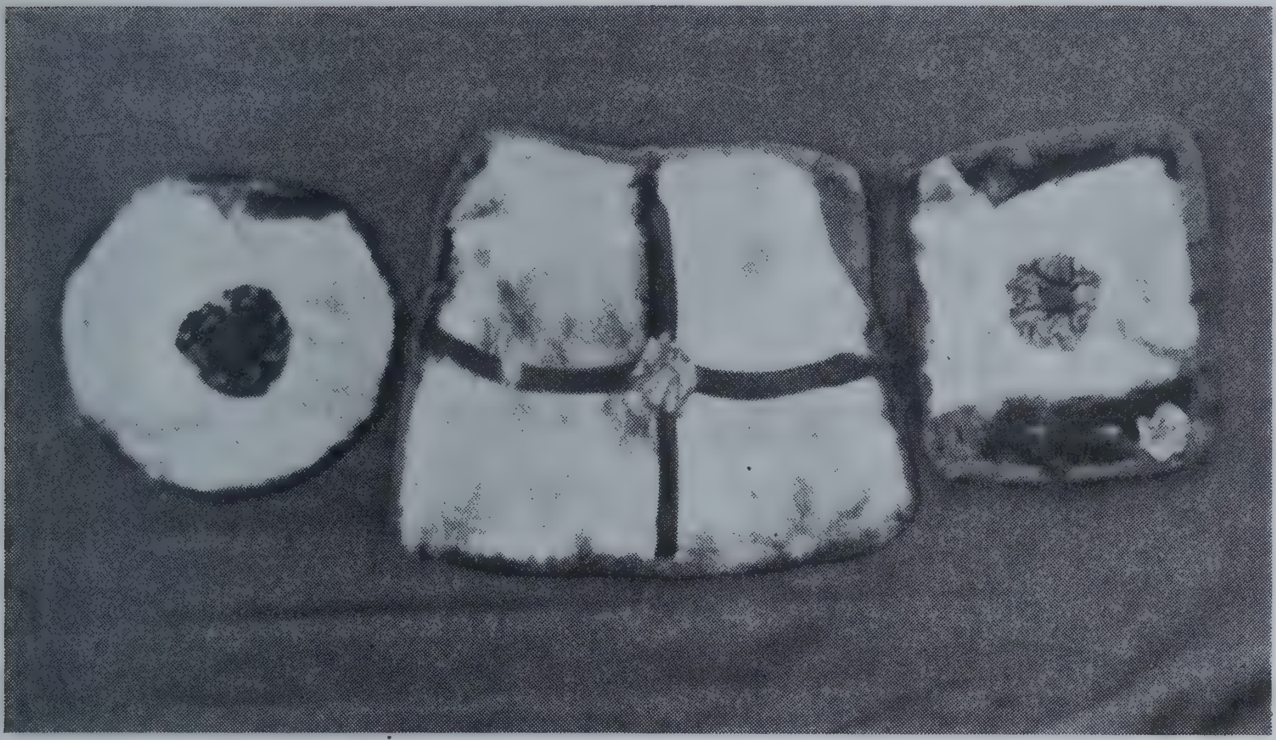

Fig. 90. Penguin mats.

The quality of these penguin mats varies greatly with the different makers. For a first-class tosselmat the skins must be selected. In the first place they should be of the same breadth — the breadth of a penguin's head may vary by a couple of centimeters — and the tossels should be equally long. Then the skins must be scraped and dried carefully, and cut exactly to the same shape to prevent distortions. In this respect there are frequently failures, and the mats are often badly distorted. Circular mats, for instance, are frequently seen with the middle rosette completely out of centre (se fig. 87). Sometimes, too, the skins are not sufficiently scraped, whereby the mat will be spoiled within a certain time, as the fat from the remaining blubber will infiltrate the feathers as well as the lining. These mats are also apt to smell. — On the other hand there are highly skilled mat-makers who always prepare their mats very well.

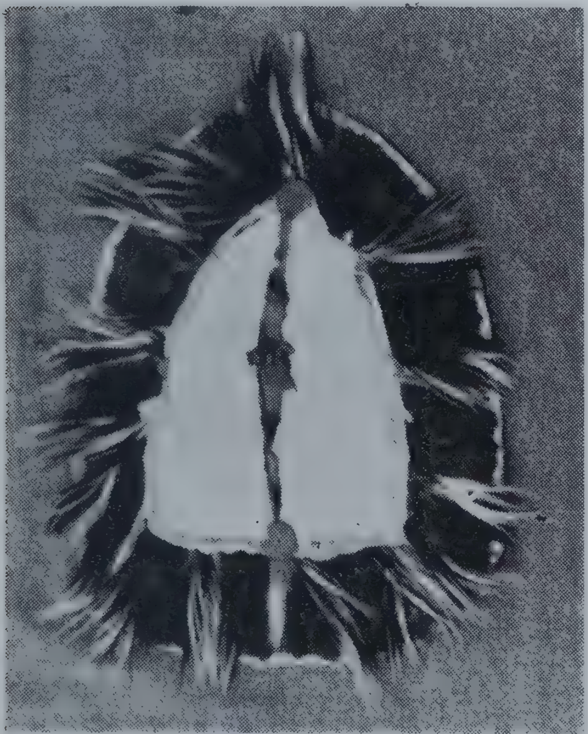

Fig. 91. Penguin mat with tossels.

More recently the islanders have also started to make even round

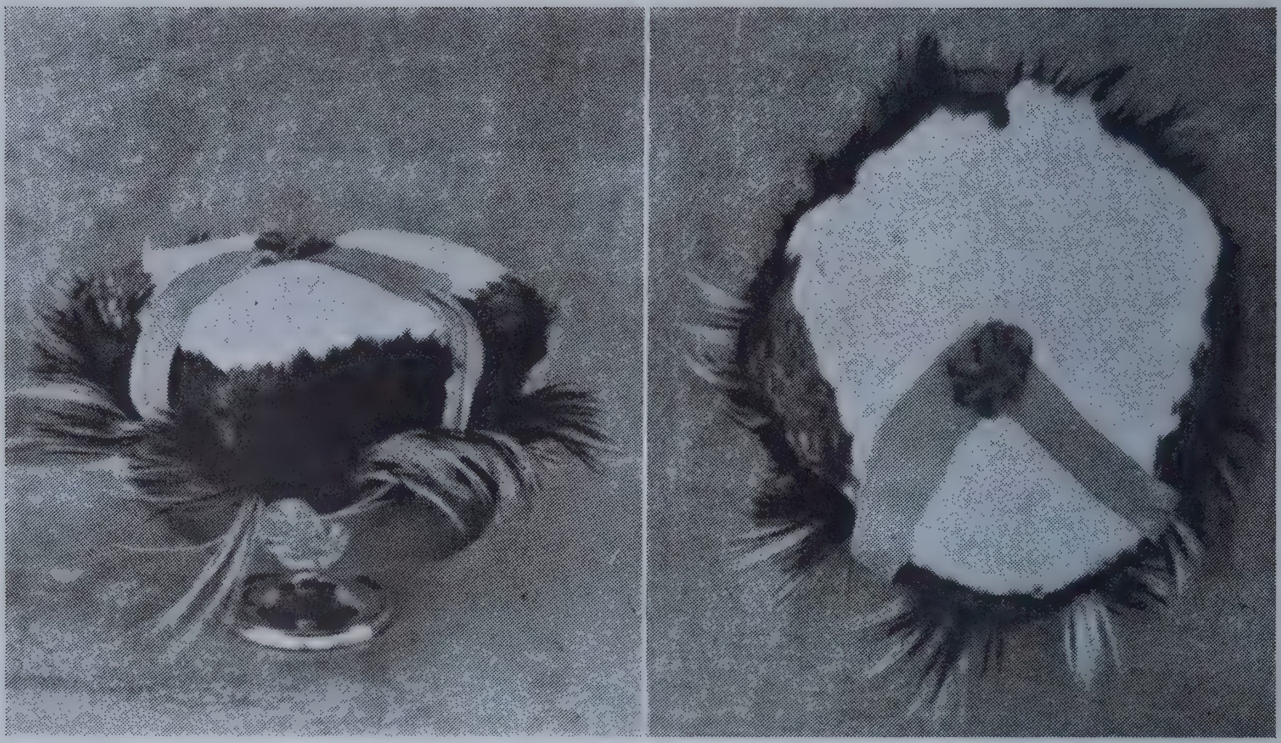

Fig. 92. Penguin cap.

hats or caps from penguin's skin. These are made partly of ordinary white skin and partly of head-skins with tossels. The model for these caps is obviously the bluejacket's cap, which the islanders know well from several visits in later years of war-ships of different nations. This is shown not only by the form but also by the decoration. The completely circular bottom of the cap is made of a piece of white skin, and an upright row of head-skins with the tossels turned upwards forms the ring. The decorations, which are even here preferably made of red or yellow silk ribbon, usually consist of a home-made flat button in front, preferably red, sometimes with a rosette, and a similar button or a tuft of coloured worsted in the centre of the circular bottom of the cap. Frequently, as a further conventional decoration, two coloured silk ribbons lead from the central tuft and forward, one to each side of the front rosette (see fig. 92). More rarely there is also a coloured ribbon crossways over the whole cap. In some cases the lower edge of the ring has an edging of silk ribbon. The caps are always lined with some kind of cloth, usually print.

A similar cap made of sheep-skin was also seen. It had the wool cut short.

Mention should finally be made of a kind of small purse or bag made by the women. These are usually made of one single piece of sheep-skin (fig. 93), but may also be sewn together from several pieces of ox-hide or wild cat's skin and penguins' head-skins (fig. 94). Also these purses are lined with cloth and edged and decorated with coloured ribbons.

Above we have been concerned with those branches of domestic industry which are mainly practised by the women. The in-door work of the men is more limited — in quantity as well as in importance — since the joinery work was restricted on account of want of wood material.

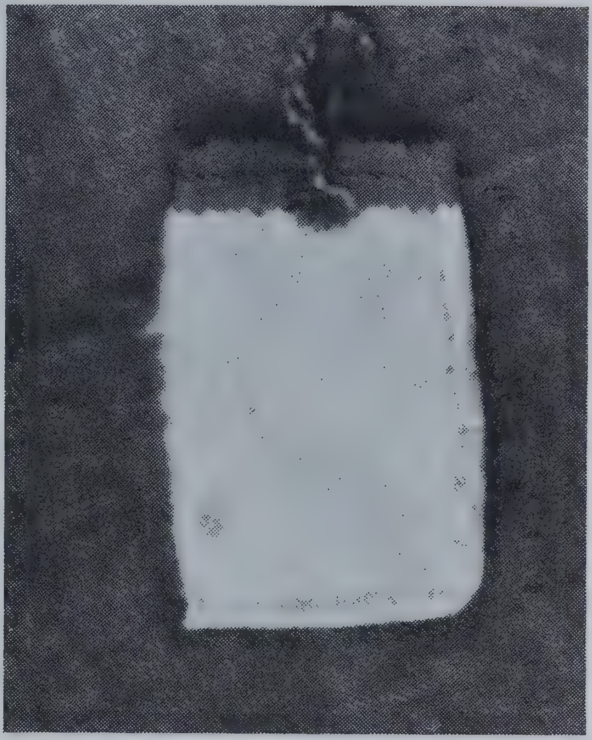
Fig. 93. Hand-bag of sheep-skin.

Nevertheless, joinery is still a quite important branch of the domestic industry, and no doubt the most important "male" branch of it. Of course, implements and methods are very primitive, and the material is scarce. What can be produced, therefore, is almost reduced to the most necessary tools and furniture — and not even that. With regard to furniture, for instance, where the islanders were formerly quite self-supporting, they have lately to an increasing degree been thrown upon outside sources, and have had to lower their claims considerably.

However, in later years the joinery in Tristan da Cunha has found a new path which makes less demands on materials and making. Some fifteen years ago — possibly induced by the interest that the islanders' canvas boats may have aroused in the passengers of the first tourist liners visiting the island — one man conceived the idea of making a model of these canvas boats for sale. He was obviously successful in his enterprise, for soon his example was followed by others, and thus a new branch of domestic industry developed, which was destined to prove to be of great importance for the islanders. Now the model-building is a very common occupation among the men, and as these models are quite well paid for by the sailors, this new industry has already come to play a considerable economic rôle. Thus as repayment for a good model boat, with a complete outfit of sails and oars, the islanders claim, and very often obtain, a good and complete suit of clothes. At present the small boats are about the best article of sale that the islanders produce.

These model boats are more or less true copies of the real boats. Even small details are frequently copied with minute care. One boat,

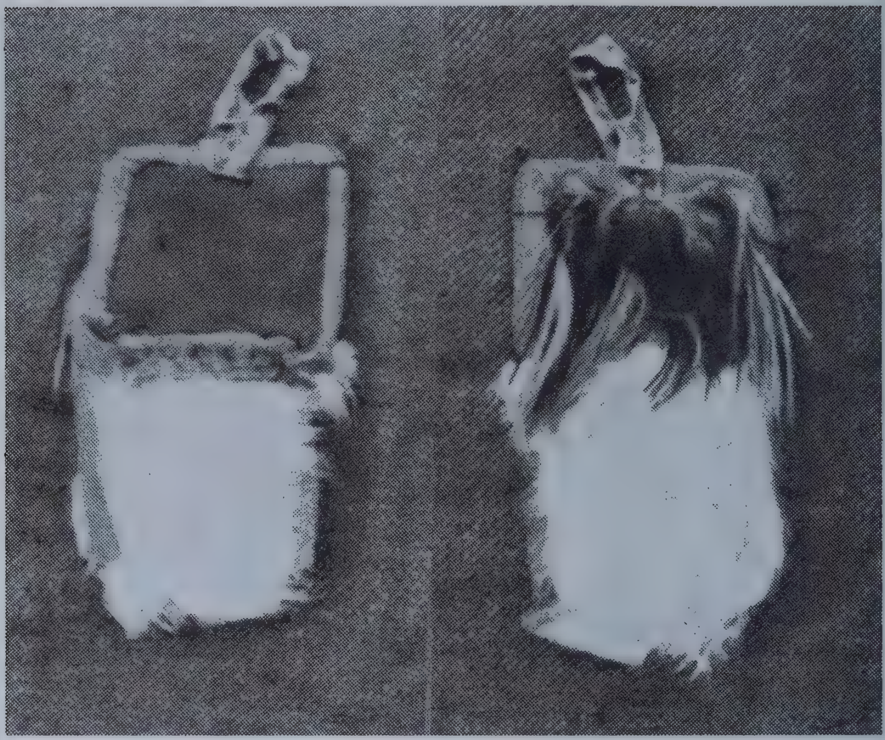

Fig. 94. Purse made of wild cat's skin and penguin tossels.

which was sold to us in return for materials for a ceiling in the owner's house, was even provided with a complete set of hynes and had loose rowlocks, cut out from a piece of lead with an ordinary knife. Box-boards of different kinds and thicknesses serve as material. The boats are for the greater part quite clever pieces of work, and disclose a great handiness on the part of the islanders, especially when considering that in making these boats they mostly have no other implements than an ordinary pocket knife, a hammer, and a saw, and they bear witness to great inventiveness in the utilization of a limited and sometimes very inconvenient material.

Success with the small boats has obviously induced others to try the same method with other characteristic Tristan articles. Thus one man started to make a true model of the Tristan spinning wheel (fig. 96). Another copied the Tristan bullock cart. Still another made a copy of the home-made wooden sofas which are found in the older houses, obviously believing that this, too, was a most peculiar thing, though it looks exactly like an ordinary garden bench.

A quite common occupation among the men is the production of polished horns, which may be rather decorative and are quite easily sold to sailors. These horns simply consist of a pair of cow's horns which are polished and mounted on a piece of wood. The procedure of polishing is the following: At first the horns are rubbed with an ordinary piece of wood. This removes the loose flakes of horn on the surface.

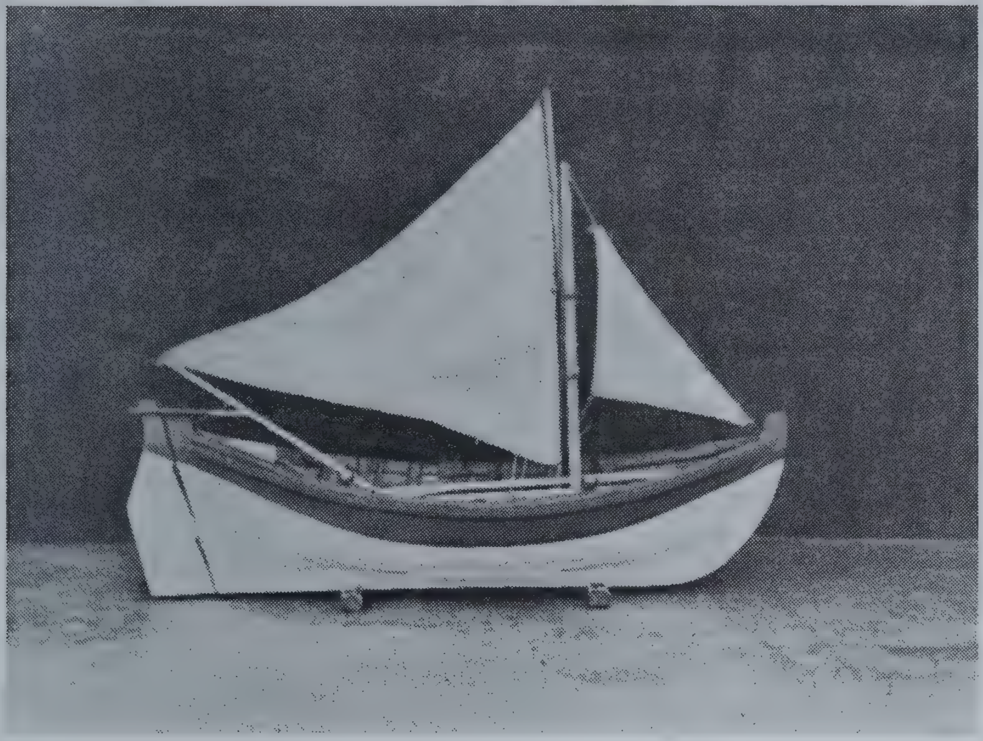

Fig. 95. Model canvas boat.

Then they are polished with sand-paper, and finally they are made shining by means of wood-ash and a dry rag. The piece of wood between the horns is covered with a piece of hide, which is nailed on with small tacks. — Ram's horns are sometimes mounted in the same way, but are not polished. The ox-hide round the piece of wood is here replaced by a piece of sheep-skin.

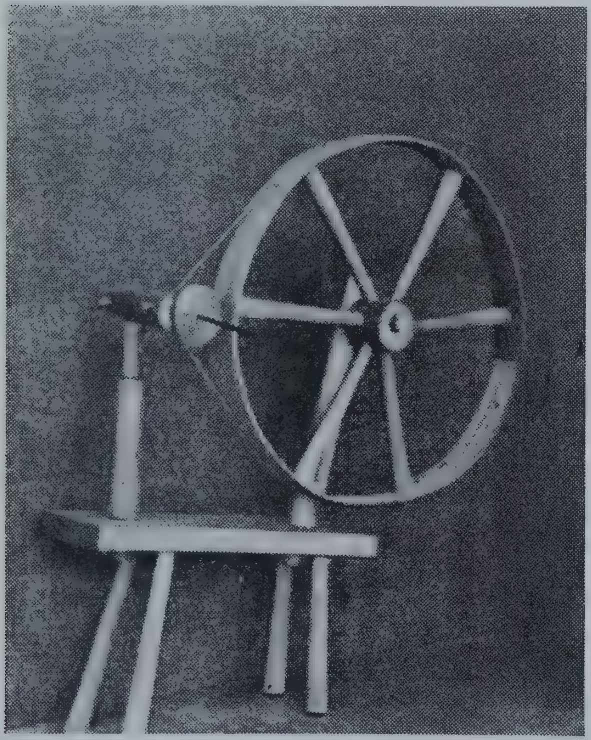

Fig. 96. Model spinning wheel.

Otherwise there seemed hardly to be a limit to the attempts made to produce new articles that were believed to be characteristic of Tristan da Cunha and were expected on this account to be attractive to the people from "the outside world" hunting for souvenirs. Many of these articles, of course, are absolutely valueless. As a characteristic curiosity may be mentioned a pair of penguin's feet that were very carefully skinned so that the skins formed two small bags, which were then stuffed with wool. The maker was convinced that he would be able to sell them as a souvenir to a European — and probably he was right!

On the whole, it is characteristic of domestic industry in Tristan da Cunha that it is still seeking new paths, in the first place to cover the steadily increasing need of new articles of export. Some branches of it have already found their forms and have been more or less conventionalized in accordance with the general character of Tristan culture. Others are still unsettled, and constant trials and experiments form a constitutive trait of its structure.

4. Social Structure.

The Island.

The community of Tristan da Cunha was from the outset founded as an absolutely co-operative unit, based on the principle of equality of individuals. According to the obvious intention of the founders, the social and economic structure of the group should be the simplest possible, the unit being built up directly and entirely on the individual with no intermediate link between the latter and the community as a whole, and with no organization that could place any individual, or group of individuals, in a peculiar position in relation to the rest, thus endangering the solidarity of the group. According to the first agreement between the settlers, above all, an extensive communism of the whole group in economic affairs was established, all property of the "firm" being held in common, all labour being performed in common, and profit as well as expenditure being equally divided between the individual members. And even in the agreement of 1821, where Glass and Nankivel, being the remaining original settlers, were allotted a monopoly of ownership of land, stock, etc. and, otherwise, were also endowed with a predominant social position, yet even here the solidarity of the group as a whole is particularly stressed, with common work and equal distribution of expenditure and profit. Seemingly, the little community claimed all the interests and all the loyalty of its members, in the same way as in the modern authoritarian socialist state, but with still greater consequence, leaving no room for other, more intimate, loyalties of its members, or for the presence of smaller groupings and organizations within the community.

There is also some evidence that this programme was really effected to a large extent. When Earle visited the island in 1824, he found not only a co-operative "firm" in which each member had to do his share of labour.[1] Casual remarks in his book seem to indicate that the community really had the character of a communistic unit, living almost on the terms of a single family. Each of the married couples Glass and White, it is true, possibly had their own dwelling, and the two bachelors Cotton and Riley lived by themselves in what they used to call the "Bachelors' Hall" (Earle 1832, p. 312). But otherwise the household of the whole little community seems to have been held in common. Food was obviously prepared for the whole group by the two women in a "cookhouse", which was separated from the dwelling houses (l. c., p. 296), and even the meals were probably taken in common. In the evenings the whole group used to meet in the so-called "Government House", which was obviously the centre of their domestic life (l. c. p. 322).[2] In this connection the 6th article of the first agreement between the settlers may be of some significance. Here it is announced that "William Glass is not to incur any additional expence on account of his wife and children", which may mean that the expenses for the subsistence of his family should be defrayed by the community in common. In other words, his family formed part of the consumptive unit without this fact involving any additional economic obligations for him.

From the outset, too, we may assume the existence of a rather strong group consciousness in the community of Tristan da Cunha. From its foundation, as we have heard, the Tristan community had a more or less clear ideological front against European society, and this antagonism towards the social environment from which they had withdrawn may have given the settlers a rather strong feeling of fellowship and solidarity, which evinces itself in their strong accentuation of the solidarity of the whole group, especially in the second agreement, as well as in their endeavours to keep away undesirable elements from membership of their community.

However, as the community, on account of the isolated position of the island, was excluded from regular communication with the outer world, and seemingly withdrawn from any influence by European society, this antagonism must very soon have died out, thus even impairing the solidarity of the members of the group. An evidence of this is the fact that the very existence of the two agreements of 1817 and 1821, wherein the leading principles of the community were embodied, seems to have been completely forgotten only after a few years. Island tradition knows nothing about them, and it was unknown that such agreements had been set up at all until they were recently unearthed in New London. And the further social development of the community confirms this statement. Thus, in the course of time and with the growth of the population, it proved difficult to carry out the planned socialistic system in its full extent. Already in 1821 it was deemed advisable to appoint one man as the leader of the "firm" in order to avoid "disunion", and accordingly there must have been a tendency in this direction. Especially after 1827, when all the grown-up men on the island got their wives, and soon also children, the loyalties and interests of the members could obviously no more be monopolized by the community as a whole, but had to be shared between the whole group and the individual families. Governor Glass had evidently no power to prevent this development by force, if he had any wish to do so. Most probably there has taken place a weakening of the group consciousness in the community, a debilitation of its *esprit de corps,* for the benefit of the more intimate groupings formed by the single families and of the individualistic life attitude that has become a so outstanding and remarkable trait of the islanders' group character.

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[1] Cp. the remark that White had to be "spared from his share of toil" in order to accompany the author on his excursions (Earle, 1832, p. 315).

[2] It is not quite clear whether this house was identical with the dwelling house of the "Governor" Glass or a separate building.

Another very important reason for this development must doubtless be sought in the assertion of the social heritage of the original settlers. The great majority of these persons had grown up, and their characters had been formed, under the influence of a society where the conjugal family organization played a prominent social as well as economic rôle, and where a strongly positive attitude towards the family as a social group was an intrinsic and predominant trait of the group character. In European society of those days, still more than in our modern industrialized society, the family was the focus of a man's or woman's interests and loyalties, and the nucleus of his social attractions. No other groupings, not even the nation, could dispute its pre-eminence. No wonder, then, that even in Tristan da Cunha, according as the settlers got their own families, their interests and loyalties were focused upon this smaller group.

Thus there is in the history of the Tristan community a steady decrease in the importance attached to "the island" as a social group. Especially has its significance as an economic unit been diminishing in proportion to the development of the family as a self-dependent productive and consumptive unit.

Nevertheless, as a matter of course, "the island" can never altogether lose its great social significance for the Tristan islanders because it is the only object for their need of society on a broader scale. As we shall see, that is also why the claims to loyalty towards the order of the group are so strong, this evincing itself in the remarkable strength of the group character. Certainly, the islanders' sense of having a group character of their own, by which they are distinguished from people outside their own community, in other words their group consciousness, may be more feeble now than it was at the outset. However, their attitude towards foreigners has shown that a certain group consciousness is present even now, and though it is partly distinguished by a strong sense of inferiority as against the outer world, in certain respects even a distinct group pride could be noticed. Also in their actual social life "the island", *i. e.* the community as a whole and as one body, plays a not inconsiderable rôle. This is evident already from the fact that the dwellings are placed close together in a kind of village. But it is above all in their feasts and on solemn occasions that "the island" comes into action as a socialt unit. In this community all celebrations are of a more or less public character, *i. e.* "all the island" partakes at least in some part of them. This is the case whether the celebrations are performed in connection with some general feast, such as Christmas or Easter, or they are of a more private nature, being occasioned by some private feast, such as a wedding, an important birthday, etc. The climax of such a festival is always a dance for "all the island" in the "school-house" at night.

It is self-evident that this group occasionally still appears as a co-operative unit in tasks that are for the benefit of the whole community. It is a conspicuous and remarkable trait of the Tristan community, however, and characteristic of the islanders' individualistic and conservative attitude, that this co-operation of the whole community is strictly limited to such tasks where it follows as a necessary consequence of the nature of conditions, or where the form and organization of the co-operation is prescribed by tradition. It is a common experience with all missionaries who have been sent to the island, that it is an extremely difficult task to make the islanders "pull together" in any new enterprise.

It is mainly in their intercourse with "the outside world", therefore, that the islanders appear as one co-operative unit. In the first place there is the trade with passing ships. Originally this trade seems to have been a monopoly of the community as a whole. This was also a natural thing as long as all produce of the island was the result of common work, and was considered the joint property of all members. As we have seen, this original communism was soon given up. Nevertheless, "the island"'s monopoly of trade with passing ships was maintained and to-day is possibly the only thing that reminds us of the original communism of this community. At any rate, no private member of the community was allowed to take up competition with "the island" in this business, private trades being only permitted provided that they did not affect or diminish the chances of a communal trade (see Brine's Report). To-day, as we have seen, this trade has been much reduced. But still the trade with ships is a prerogative of "the island", and private bargain may only take place if it does not affect this communal trade. Actually, the "market" has been apportioned so that the supply of the ship with stores for the ship's own use is the exclusive right of "the island", while the individual islanders make private bargains with the individual sailors or passengers.

Also as receivers of gifts from the outer world the islanders frequently appear as a unit, naturally because these gifts are frequently addressed to "the inhabitants of Tristan da Cunha" as one body.

Of course, then, in the landing of stores obtained by the whole community, either through barter or as gifts, as well as in the shipping of supplies for the ship's use, the co-operation of the whole community is claimed. Actually, the cry "sail-oh!", which indicates that a ship is in sight, always means an activation of the whole community as a co-operative unit. It is a matter of course to-day that every man on the island joins in to take part in the work. Even the boys are engaged, being used as ox-cart drivers while the men work in the boats and on the beach. Once — it was shortly before 1885 — it seemed that the increasing dissolution of the community would even take effect upon this form of co-operation of the whole community. Certain people were apt to evade the trouble of going out to the ships, yet claimed a full share of the goods received. And, to avoid this, it was considered necessary to follow the rule that only those who go out to a ship should have a share in the goods obtained.[1] To-day the existence of this rule has been almost forgotten, obviously because it is no longer necessary.

We found hospitality to be an outstanding trait of the islander's group character. Obviously, the islanders regard it as a matter of collective honour to treat their guests in the best possible manner. Any help that may be given to a foreign visitor, therefore, is likely to be rendered in common, through co-operation of the whole community. This was the case in the old days, as is stated in Captain Brine's Report with respect to the maintenance of shipwrecked crews.[2] And it is the case to-day. Our own experiences confirm this statement. On more than one occasion our presence acted as a stimulus to call forth the co-operation of the whole community. And in relation to the missionary, and with regard to the assistance rendered him, the co-operation of the whole community is of an even more permanent nature. Not only have the islanders co-operated in the erection of a dwelling for the missionary, but since 1906 "the island" as one body has also contributed to his maintenance, granting him a weekly supply of food.[1]

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[1] See Letter (to the Admiralty) from Peter W. Green, dated December 29, 1884 (Correspondence, p. 35).

[2] "All wrecked crews are billeted upon each house, and are maintained at the public expense until some vessel conveys them away" (Correspondence, p. 3).

Otherwise, the co-operation of the whole community is confined to tasks where such co-operation is given by the nature of circumstances. Actually, when to the examples just given we add the work to turn in the sheep in the evening and to keep up the roads, we have probably mentioned all situations where "the island" comes into action as a co-operative unit. With regard to the sheep, the co-operation is obviously prescribed by the habit of the sheep to gather into a compact herd when chased, so that it would be an almost impossible task for one man to turn in just his own sheep, leaving the others behind. So the men take turns to turn in the whole flock, while each owner stands at his kraal to receive his shep and get them inside. Likewise, as a matter of course, the building and maintenance of roads are public works. It is characteristic, however, of the slowness and ineffectiveness of a co-operation wherein the whole community is concerned, that in 1938 the road across The Bluff had been out of repair for two or three years. This road determines the utilization of the pasturages at Anchorstock. Nevertheless, it was left in its wrecked condition, no effort being made to repair it, while on the north side of The Bluff the cattle were allowed to perish for want of food.

It is true that a co-operation of the whole community has been established in the erection of a church edifice, as well as in the building of a school-house, or "Parish Hall", a storehouse, and a hut in The Patches, and lately even a "hospital". Nevertheless, all these buildings have been erected at the initiative of the missionaries, and at the expense of much effort on their part to make the men join in the work. Only two huts in Stony Beach have been erected by "the island" at the initiative of the islanders themselves. And again it is characteristic that in 1938 one of these huts was quite useless because of the condition of the roof, which had probably not been renewed for several years, while the other hut, which has a corrugated iron roof, was leaking badly.

Accordingly, there is even very little left of the original communism of property. To-day, the joint property of "the island" is confined to two life-boats, a pedigreed Ayrshire bull, seven brood sheep, and four pigs. It is worth noticing that all these things are gifts from outside which have come into the possession of "the island" without the activity of the islanders, and which could not be distributed because of their own nature. It would probably never come into the mind of the islanders to buy such a thing of their own accord in order to keep it as the joint property of "the island".[1]

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[1] This latter arrangement, however, was originally instituted at the initiative of the missionary himself (Barrow, 1910, p. 30). For the organization of this and other functions of "the island", see below about the functions of the family.

The Family and the House.

As will be seen, it is a remarkable development that has taken place in the community of Tristan da Cunha. Out of the original "firm" forming an absolute co-operative unit has developed a community which only occasionally acts as a unit, so to speak only when conditions directly enforce universal co-operation. The main reason for this development, as we have already suggested, must be sought in the assertion of the European family organization. Besides, as we have seen, it was strongly supported by the economic development of the community. So this development is an evident example how the consciously instituted social order of this community has been eclipsed by a second order which has grown up unconsciously and spontaneously, and is the result of a co-operation of the original social heritage of the settlers with the peculiar conditions of the island.

As a matter of fact, the foundation of this development was laid already in the two agreements that the settlers set up, although unconsciously on the part of the settlers. These agreements were, as a matter of course, made and signed by the men, who were thus made the formal members of the "firm", while the two women, Mary Glass and Peggy White, as well as their children — in full accordance with the patriarchal attitudes of European society of that time — had no *locus standi* in the community except as an appendix to their respective husbands or fathers, *i. e.* as family members. The more significant was this fact as the profit arising from the agency of the "firm" was apparently not added to the capital of joint property but was equally divided between the members.

Thus the European family organization became, from the outset, an important trait of the social structure in Tristan da Cunha. And, as we have seen, its importance grew still greater as time went on, favoured by the economic development of the community, especially its growing isolation. To-day the family in Tristan da Cunha is a self-dependent group, and the main pillar in the structure of the community — in a still higher degree than in the European society of the time when the Tristan community was founded.

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[1] On the property conditions, see below.

Already with this development as a background it is very probable that the family in Tristan da Cunha should be found to be a well defined and strongly solidary social unit. However, in this respect the development has gone far beyond what is found in any other society. As a matter of fact, in Tristan da Cunha what the islanders call a "family" has become a functional unit so well defined and strictly bounded, and with so specific functions, that it has little in common with that group which is ordinarily described as a "family" in sociological literature, though it differs from the latter group with respect to personnel only in extreme cases. Actually, we must presume that there has taken place a delimitation and a slight alteration of the very sense of the word "family" as used in Tristan, while the group that corresponds most closely to the European family, with respect to both personnel and functions, is what the islanders call the house.

In ordinary English, as in most European languages, the term "family" may be used in various meanings indicating vastly different social groups. Primarily it designates (1) the household, including parents cildren, servants, etc., then in a more restricted sense (2) the biological reproductive unit, consisting only of parents and children. But it may also be used in a wider sense about (3) the joint-family (die Groß-Familie), which also includes children-in-law and grandchildren, or it may be a denomination of (4) the unilateral and patrilineal descent group (Norwegian ætt), what is frequently called "the patrilineal clan" in scientific literature, or simply "the clan". The latter group includes all individuals — living or dead — who bear the same "family name" because they reckon their descent in the male line from a common ancestor. Finally the term "family" may be used in a very wide sense about (5) the bilateral kin group, including all "relatives" through either father or mother. In the latter case there are no distinct limits for the extent of the "family", it being a matter of circumstances how far out the kinship is recognized in each case.

In Tristan da Cunha the word "family" is only used in a sense which corresponds most closely to sense No. 2 in English: it is primarily only used about the biological reproductive unit consisting of mates and their offspring. And so narrow is the line drawn that it excludes not only children-in-law and grandchildren, but also married children, and even children who have, for some reason or other, moved out of the house and settled with another family. The family in Tristan da Cunha,

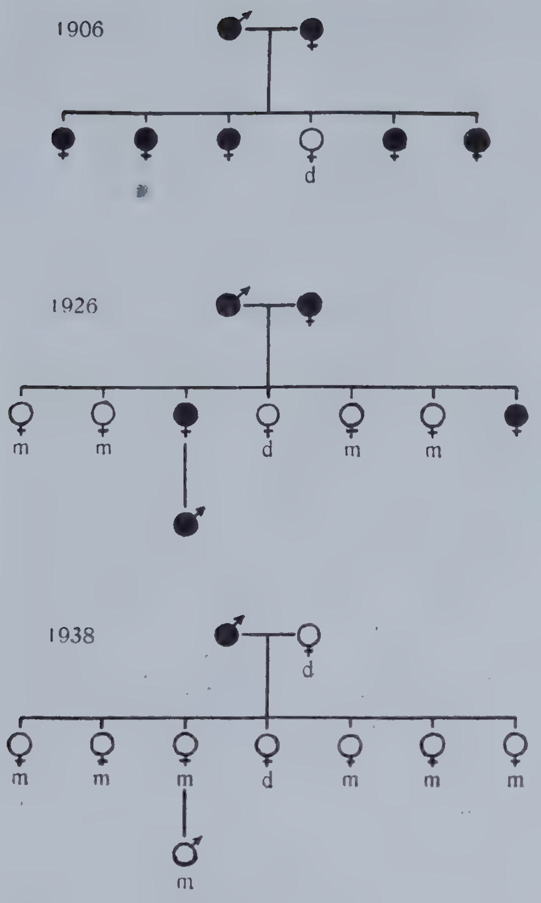

Fig. 97.

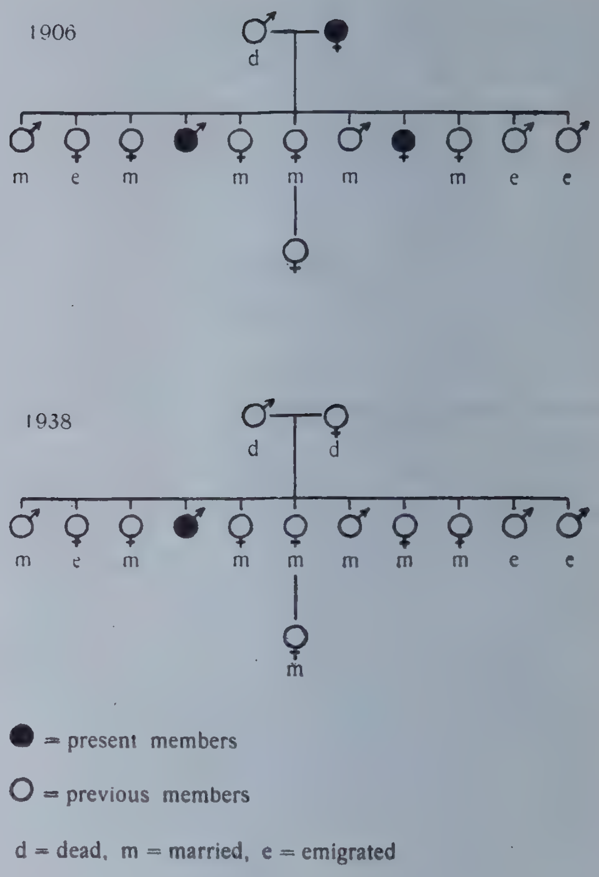

Fig. 98.

Fig. 97. Development of Old Sam Swain's family 1906—1938. For explanation of signs, see fig. 98.

Fig. 98. Two stages in the development of another family.

then, in the first instance only includes the married couple and their unmarried children as long as they remain living in the house. As soon as the children contract marriage, they are no longer reckoned as members of the original family unit, but form, each with his or her conjugal partner, a new family which is sharply distinguished from the old one, even if they should remain living in the same house, which is sometimes the case (see below). When all the children are married, the original family is thus again reduced to the original couple and continues to be reckoned as a "family" of its own as long as one of the parents is alive. Thus a "family" in Tristan da Cunha may consist of only one person, namely a widower or a widow whose children have all been married (see fig. 97).

Children, on the other hand, who remain living unmarried in the house of their parents, belong all their life to the family into which they were born, no matter whether the parents are still alive or not. When the parents die, the individual family continues as such in the unmarried children. This is the case even if there is only one unmarried son or

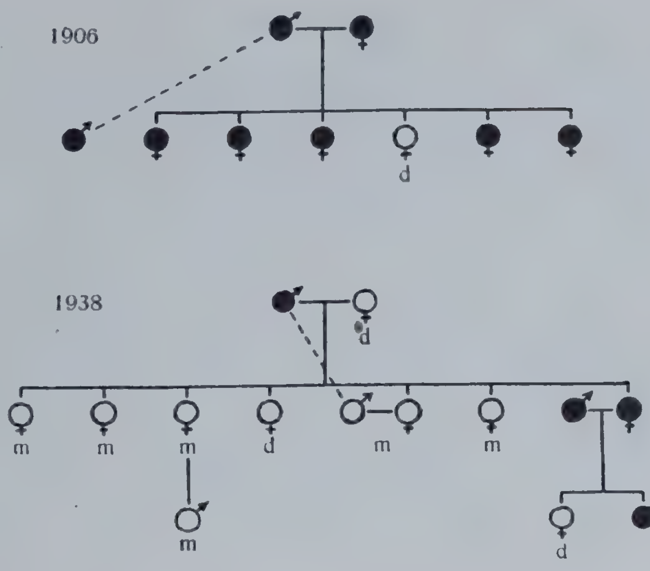

Fig. 99. Development of Old Sam Swain's house 1906—1938.
For explanation of signs, see fig. 98.

daughter who survives the parents. Thus even an unmarried person may form a "family", with the same rights and duties as any other family (see fig. 98). But no single person can voluntarily separate from his family and form a new one unless he contracts marriage.

Children born out of wedlock always belong to the mother's family. As long as the mother remains unmarried, they are reckoned with the family of their maternal grandfather and also bear his surname (fig 97). But when the mother gets a lawful husband, they follow her into her new home as members of the new family. If the husband is the child's father — which will usually be the case — the child is hereafter even called by his surname. Otherwise it will retain the mother's maiden name.

Normally, each Tristan family occupies a dwelling of its own, and forms an absolutely self-dependent functional unit. It is the rule, therefore, that the family is identical with the house. With respect to personnel the two groups normally coincide. However, in certain cases "the house" may denote a more extensive group than "the family" in the exclusive sense of this word as used in Tristan, and in these cases a distinction may be drawn between the two notions.

Such extension of the house beyond the actual family occurs when a person — usually a young relative of either of the conjugal partners — is adopted into the house from another family. Such a person is usually not recognized as a full member of the family, though he is so of the house. However, in case he is a single person who does not form a family of his own, he may be more or less fused into the family as well. Here the distinction between the house and the family is not so sharp.

The matter is quite different when two families join into a house. This is frequently the case when the last son (more seldom daughter) ot an old family marries and gets his own family. He will then remain living in his father's cottage, and the two families, the old and the new, will more or less fuse into a functional whole, forming one single co-operative and consumptive unit, a house. Thus, actually, the life of the father's

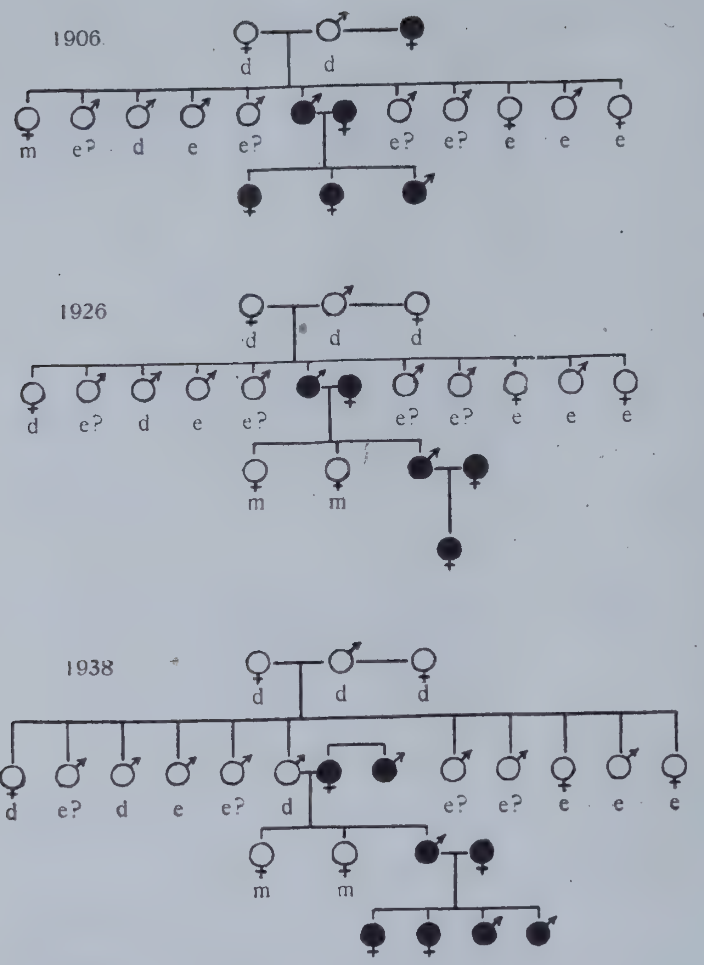

Fig. 100. Three stages in the development of another house, showing how it may be continued through several generations. For explanation of signs, see fig. 98.

house is continued by the son and his family, and in this way the existence of a house may be continued through several generations (see fig. 100). But the two families are never fused as such. They will always remain two distinctly different families. This is the case even if one of the families only consists of one person as in the case illustrated in fig. 99 (cp. fig. 97). Even though the compound house forms a co-operative and consumptive unit, with common work and common household, the dwelling is usually divided between the families so that each family occupies its own department of it, although the direct approach between the two parts is always left open. And outwardly, in relation to the rest of the community, they always form two separate families, each with the same rights and duties as any other family.

There were four such compound houses in Tristan da Cunha in 1938. One of them consisted of two families, namely an old couple and their married son with his family of wife and one son. The dwelling was apportioned between the two families so that the old couple occupied the front room while the kitchen and the bed-room were left to the young people. Each part had its own entrance.

The next compound house was composed of three families, namely a widow and her son with his family of wife and four children, besides a brother of the widow, who was an invalid and the only unmarried remnant of his paternal family (fig. 100). Two of the families, the widow and her son with wife and children, lived together in a three-room cottage, but it is uncertain whether there was any apportioning of the dwelling or not. The invalid lived by himself in one room of another cottage, which had formerly been his own (probably his paternal dwelling taken over by him when all the other members of the family had either died, married, or left the island, cp. fig. 98), but which he had some years ago sold to another man with the clause that he should be allowed to retain one room during his lifetime.

The third compound house on the island consisted of a childless widower and his nephew with wife and daughter. The dwelling, which was the property of the widower, was apportioned between the two families in the same way as in the first case mentioned, the widower holding the front room while the young family occupied a kitchen and a bed-room. Even here each part of the dwelling had its own entrance.

Finally, the fourth compound house is the one illustrated in fig. 99. It was composed of a widower, his daughter and son-in-law, and their little son. Here, again, the young people occupied two rooms, a kitchen and a bed-room, while the front room was left to the widower. However, the cottage had only one entrance, namely through the front room.[1]

Actually, the compound house is nothing but an extension of the family. Such a unit is only established whenever an old family has been reduced to the original couple or to only one person, and it is only established thereby that one or two such reduced families (or a single person from another family) attach themselves to a normal (actually or prospectively full-sized) family. It never occurs that two normal families, *i. e.* families consisting of mates and their offspring, are joined into one house. The number of individuals in a compound house, therefore, in no case at present exceeds the number in the largest normal families.

Such extension of the family through the attachment of lone individuals is nothing peculiar in human society and does not alter the whole group's character of a family in the proper sense of the word, because it does not alter its functions. The remarkable thing is — and this, I believe, is peculiar to Tristan da Cunha — that these attached individuals remain being recognized as "families" of their own, distinct from that normal (full-sized) family which always forms the functional nucleus of the house. Thereby the word "family" has acquired a special meaning which is peculiar to Tristan speech, while, as a matter of fact, what the islanders call the "house" is the real equivalent of the family in other human societies.[1]

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[1] There are two more cases of a cottage being divided between two families, and if we reckon the case of the invalid mentioned above, who lived in a cottage along with the man to whom he had sold it, there are three. But in these cases the two families do not form a functional unit, each family forming a house of its own (except the invalid, who is a member of another house). In these cases, too, the division of the dwelling is more complete. In one case there is no direct approach between the two parts, the door between the kitchen and the bed-room having been blocked for that purpose. In the two remaining cases the two parts are only connected through a common lobby, the cottage having only one entrance.

In accordance with these conditions, when talking of the social structure of the Tristan community, even we must have a distinction made between the "house" and the "family" in accordance with the usage of the Tristan islanders, so that we speak of a "house" when a house is meant, whether it is composed of more than one "family" or not, and of a "family" only when the thought is of a family in the Tristan sense of the word, whether it forms part of a compound house or a house of its own. However, it should not be forgotten that normally the two groups coincide with respect to personnel, and that the compound house is nothing but a secondarily extended family. It should prove impossible, therefore, to carry through a sharp and consistent distinction between the two notions as they have obviously many qualities in common. Only when we turn to the functions of these groups will we be able to make a sharp distinction as in this respect the "house" and the "family" diverge strongly.

Marriage and the Family. It will have emerged from the foregoing that the Tristan family-house, like the European family, is inseparably connected with marriage as an institution. This connection of the family with marriage actually obtains in all societies that have a conjugal family organization.[2] Here the nucleus of the functional family is formed by the reproductive unit of mates and their offspring, and the basis of the family is a socially recognized durable association of persons of opposite sex which is instituted through some kind of public nuptial ceremony. Most societies with a conjugal family organization, therefore, recognize the existence of a family from the moment a marriage contract has been performed. So also in Tristan da Cunha. The individual Tristan family-house — like the typical European family — is virtually instituted with the performance of a marriage contract, no matter whether the alliance between the partners will result — or has already resulted — in the birth of children. Normally, too, the existence of the individual family-house ends with the death of the original partners, though here the Tristan group differs from its European origin in a double respect, in that a family may continue after the death of the parents, namely in case they are survived by an unmarried son or daughter, while a house may be continued even into the next generation through the marriage of the last remaining son or daughter.

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[1] It should be remarked, however, that the Tristan islanders are hardly conscious of the distinction made in their daily speech between the two notions. Possibly, they are not even conscious of the fact that they use the term "house" in this "societal" meaning, about the group of persons occupying a dwelling, and not only of the dwelling itself. Nevertheless, they do, and when they use the word "house" in this sense, they clearly and consistently (though probably unconsciously) distinguish it from the "family". They never use the two terms indiscriminately.

[2] For the distinction between the conjugal and the consanguine family organization, see Linton, 1936, p. 159 sq.

A dissolution of the individual family-house before the death of the original partners through divorce is unknown in Tristan da Cunha. This absence of any case of divorce has an obvious connection with the fact that the Tristan community is, by virtue of its strong isolation, a single endogamous group with a very homogeneous milieu. The mutual adjustment of the spouses, which, in more complex societies, may be a most severe and radical psychic process for the partners, and the source of crucial conflicts within the individual family, especially during the first few years of its existence, this adjustment involves as a rule no great difficulties in Tristan da Cunha, because both partners are more or less formed by the same social environment, which, besides, is in possession of a very strong group character which puts its decisive stamp on each individual character. Otherwise, the firmness of a marriage once contracted is in full accordance with the islanders' conservative and conventional attitude, which is also an expression of the general strength of the group character.

The Inner Structure of the House. It may be put down as a general rule in sociology, to which no exceptions have hitherto been found, that in the conjugal family dominance and formal control are always vested in the father (Linton, 1936, p. 169 sq.). This is also the case in Tristan da Cunha. And there is one more reason why this should be the case here. It should be remembered that the Tristan house is the direct successor of the European family of the 18th and early 19th centuries, with its rigorous patriarchal system. As to the inner structure of the individual house, therefore, the Tristan house is strongly patriarchal. The husband and father is distinctly the head of the house, and has as such an extended right to dispose of the aggregate property and working power of the house or any of its members.

This dominant position of the house father is evident already from certain customs which are observed, especially in relation to foreigners. Whenever we made a visit to a house — especially if this was our first visit to that house — and the husband was not in, he was immediately sent for provided he was within reach, and we were not offered a seat until the husband had arrived and could himself offer us one. The wives always behave with great, almost subservient respect towards their husbands, especially so in the presence of a foreigner. We had many opportunities of observing this during the first few weeks of our stay on the island, before we had got on more intimate terms with the islanders. Especially in the older families the wife would not talk to a foreigner in the presence of her husband, but leave it to him to carry on the conversation. Even when a question was directly addressed to her it was sometimes not answered until it had been repeated by the husband, and then as an answer directed to the latter, who would subsequently communicate it to the foreigner. During a visit in the house the husband would sometimes sit down and have a cup of tea with the guest, while the wife, after having served the tea, would take a more modest position standing at the door or sitting on the edge of a box — if she did not retire to the kitchen. Even in the absence of the husband she would never venture to take a cup of tea with the guest. In the younger families these forms are not strictly followed, but even here the wife takes a humble and retired attitude in relation to her husband when foreigners are present.

However, we should not conceive of the Tristan paterfamilias as a brutal domestic tyrant. His dominance in the house rests on common consent, and is very rarely maintained by means of brute force, with the exception that corporal punishment forms an established part of the education of the children. We have already stated that a kind considerateness and respect for the individual is an outstanding trait of the islander's group character, and this is also the leading principle in the relationship of house fellows towards each other. Especially are the men very gallant towards their wives and always treat them with great respect and often with affectionate care. The two men who were reported to be apt to beat their wives only confirm the rule. In daily life, of course, the tone is freer than it is when foreigners are present, and, actually, in many houses the influence of the wife may be quite large, although formally all decisions concerning the wellbeing of the house are left to the husband.

The father's dominance over his young children is by the nature of the case of a more absolute character. The children are given no chance of opposition in matters of any importance. Daddy's words are orders, and obeyance is, if necessary, enforced by corporal punishment, usually a good "hammering" with daddy's belt. Thus the children are generally subject to a rather strict and consistent education, wherein corporal punishment, or threats of such punishment, play a considerable part. From about the age of 10 the children play a distinct rôle in the economic co-operation of the house, their working power being claimed in the potato fields and for other easier work. And, of course, with growing age and working capacity their duties increase. However, even in the relations of parents to children, and *vice versa,* the dominant factor is affection and love. I never witnessed, in Tristan da Cunha, a cruel or unloving treatment of a child. The positive expressions of love and affection, on the contrary, are many.

The status of the grown-up, but unmarried children is in some respects quite different from that of the young children. On the one hand, of course, it is more exacting because of the greater working capacity of an adult person compared with a child. The duties of a grown-up son towards the house in point of work are almost equal to those of the father, and even greater in case the father is old or infirm. And his duties in respect of obedience to his father are not much smaller than those of a child as long as he lives in the house. On the other hand, the claims to a personal independence from the authority of the father are naturally stronger. And these claims are, for some part, socially recognized, in full accordance with the individualistic life attitude of the Tristan islanders. Full majority is — obviously after the European model — formally acknowledged with completed 21 years, and the day is celebrated with a big dinner for relatives and friends. But even previous to this, usually after sexual maturity has been reached, *i. e.* from the 15th to the 17th year, the bonds that tie the young man or woman to the paternal authority start to loosen.

Particularly a grown-up son may under certain circumstances have a considerable influence in the life of the house, and may even gain a certain degree of independence. Especially if he has brothers who also do their part of the work for the good of the house, he may dispose of much of his own working power for private or semi-private ends. In case he is engaged he will even offer most of his working power for the benefit of the girl's house. And if he is enterprising, he will acquire cattle and sheep of his own, and cultivate his own potato patches. Although his property and its yields form part of the aggregate property of the house and, as occasion is given, must be placed at the disposal of the house, he has still some control over it, and when he leaves the house, either to start his own family or to move over to another house, he will take his property with him. In this way he may acquire a certain economic backing which will increase his influence and relative independence in the house.

The young woman is by the nature of her work more closely confined to the house, and her eventual claims to personal independence are not socially recognized to the same degree as those of the young man. Also she may have property of her own, usually in the form of sheep, geese, and fowls, which is to form a kind of dowry when she gets married. But as long as she lives in her father's house her property is entirely included with the other property of the house and is freely disposed of by her father. A prudent father, on the other hand, will always see that his daughter's property, if possible, remains intact, as it will, in the first instance, attract the working power of suitors to the house and thus increase the daughter's chance of getting a good and laborious husband.

In spite of the fact that marriage constitutes a rather close relationship between the houses of the conjugal partners (see below), both boys and girls are absolutely free in their choice of a spouse. The parents very rarely interfere in this question. But, on the other hand, there are a few instances of the father having forbidden his son or daughter to marry before the age of 21. After the child has reached that age he has no such right.

Thus the final emancipation of the offspring from the paternal house, which is fulfilled with marriage, is prepared during a period of gradual disbandment of the psychic, social, and economic bonds that tie children to their parents. Generally speaking it seems that this process of gradual disbandment runs quite smoothly as it appears to leave no doubt as to the extension and limits of the socially acknowledged rights and duties of either part in every single case or situation. At all events, open and crucial conflicts between parents and children are very rare — if they occur at all. There was only one possible case in Tristan of a young man having left his paternal house for such reasons: He had settled in the house of his elder married brother because, it was alleged, he did not agree with his step-mother.

As to the inner structure of an extended family, or compound house, it seems to be a rule that dominance is held by the owner of the dwelling, who will usually be the oldest paterfamilias, normally the grandfather. His dominance, however, is of a much less marked character than that of the family father over his family. When the old man dies, his son, son-in-law, or nephew, as the case may be, is usually recognized as the owner of the dwelling, and also takes over the dominance in the house, though the old female, if she is a strong-minded woman, may retain a great influence over the young people.

The Functions of the House. Seen from what we may call a functional point of view, every social group exists by virtue of the functions that it performs for the covering of man's material, cultural, and social needs. And the more important the needs that are covered through the activity of the group, and the more effectively they are covered through the same activity, the greater will the significance of the group be in the lives of its individual members, as well as in a wider social coherence, and the firmer its structure. Whenever, therefore, in any community we are faced with a group that plays a prominent part in the social structure, we may presume that this particular group has certain functions to perform that are of vital importance to its members, and by virtue of which it may claim to be the focus of its members' social interests and loyalties. A nuclear question in sociology, therefore, is the question: What are the functions of this or that social group?

In the Tristan community we have found that the "family" has become a self-dependent and remarkably well defined group which plays a most prominent part in the social structure of the community. We have further found that, although it normally coincides with the "house", it must be distinguished from it. What, then, — and this must be our next question — are the functions of each of these groups? And what are the special functions of the "family" that form the basis of its distinction from the "house"?

In any society, whatever is the form and structure of its family organization, the most conspicuous functions of the family are its economic functions. By most writers who deal with this question at all these functions are also placed ahead of all other functions as the most important, or at least as the next in rank after the biological function, the procreation of children, which many writers consider to be the basic function of the family.[1]

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[1] See, e. g., Lowie, 1921, p. 62 sq., Rivers, 1924, p. 24 sq., Ahrens, 1931, p. 23 sq., Thurnwald, 1931/35, vol. 2, p. 9, Linton, 1936, p. 156, Vierkandt, 1936, p. 30, Baber, 1939, p. 586 sq. — As to the biological function ascribed to the family by many writers — the procreation of children — it is the function of the couple rather than of the family. Certainly, many societies do not make any distinction between the couple and the family, the married couple being recognized as a family whether there are children or not. This, as mentioned, is the case in most societies with a conjugal family organization. Nevertheless, in sociology it is necessary to have a distinction made between the two groups. It is true that in societies with a conjugal family organization the couple forms the nucleus of the individual family — that is why these societies mostly do not distinguish between the two groups. But there are many societies where this is not the case (see Linton, p. 153, 159 sq., 173). The consanguine family, which is founded on the perpetuation beyond childhood of the consanguine group of brothers and sisters, when once it has been created, exists independently of the couple from which it has emerged. And especially with regard to functions, a sharp distinction has to be made between

This conspicuous pre-eminence of the economic functions of the family has a biological foundation. It is a consequence of the strong dependence of children during the first few years of their lives and their inability to support their own lives and to adjust themselves to their environment without aid. This dependence of the young is a characteristic that man shares with a great many other animals, and this phenomenon is nearly always found to be connected with the existence of some form of family, the young ones remaining for some time living with the mother or with both parents in one distinct group. The function of this group, by virtue of which it is perpetuated, is the care of the young, the provision for shelter and nutrition for the whole group, in other words an economic function (cp. Espinas, 1935, p. 266). As soon as this function has been fulfilled, *i. e.* when the young ones have become capable of leading an independent life, the family is dissolved or is fused in a higher unit.

In human society this natural order has been altered in many ways. Many economic functions, especially those connected with production, are with growing civilization apt to be taken over by associations and institutions outside the family. The family, on the other hand, has many other functions to fulfill than the mere material care of the young, cultural, religious, and other social functions. And its forms and personnel vary greatly. But nowhere has the family entirely lost its economic significance in human society. Even though the productive functions have frequently been transferred to more extensive co-operative groups, the family tends to remain the consumptive unit, each individual family forming a household of its own.[1]

In Tristan da Cunha, as we have seen, the house is the equivalent of the family in other human societies. Thus it is just a confirmation of a general sociological rule and the expression of a natural, biologically determined order, when in Tristan da Cunha the house is found to be

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the couple and the family. The basic functions of the couple are — and will always remain — the provision for the sexual needs of the partners and, through this, the production of offspring for the perpetuation of the kind. And these functions are, by nature of biological facts, the exclusive functions of the couple, whether the latter, in the society concerned, is a permanent group instituted through marriage or just a casual and transient union of persons of opposite sexes. The result of these functions is normally the procreation of a family in the proper sense of the word, the form and structure of which are — within biological limits — determined by social and cultural factors, and whose basic — biologically determined — function is the care and rearing of the children once brought forth.

[1] A good impression of the economic significance of the family in human society may be obtained by studying the various forms of co-operation in different primitive cultures described in Margaret Mead (ed.): Cooperation and Competition among Primitive Peoples.

an entirely self-dependent economic unit, with all the most important economic functions attached to it. The only remarkable thing is that this natural order has, in Tristan da Cunha, been so little object to alterations and has even asserted itself, as we have seen, in defiance of a consciously instituted order which particularly stressed the economic solidarity of the community as a whole.

In the first place, the house in Tristan da Cunha is conspicuously the most important productive unit. We have already touched on this question in connection with the inner structure of the house, and found that normally the house forms a co-operative unit under the guidance of the father.

This applies especially to the production of potatoes, the staple diet of the islanders. Each house cultivates its own potato patches independently of other houses. Certainly, the patches are privately owned by individual members of the house, and not all of them may be owned by the house father. Especially in the compound houses each family father has usually his own patches. But, whatever the condition of individual ownership may be, the patches belonging to a house are always worked by the whole group separately and as one body, and the aggregate crop of each house is always thrown together in one heap, regardless of whose patches it has been dug from. This co-operative unity of the house in the potato production is particularly conspicuous during the harvest season, when all the available labour is mobilized for this work. At this time there is every morning a general exodus, a caravan of ox carts moving towards The Patches, but always each house in a distinct group by itself, and later on one will find them, each house working in its own patches as a compact co-operative group, only assisted by an eventual suitor to the daughter of the house. Only occasionally during the harvest season, and only then, may two nearly related houses join in the work, forming for a few days a co-operative unit, though this must be regarded rather as a kind of mutual helpfulness than as an actual co-operation,[1] the crop of each house being kept strictly apart.

Also in the breeding of sheep the economic unity of the house is rather conspicuous. The sheep, it is true, like the potato patches, are owned by individual members of the house, many of the grown-up but unmarried girls having a few sheep of their own. But they are all regarded as the aggregate property of the house. When a house father was asked how many sheep he had got, he would not only count the number of sheep that were actually his own individual property, but would, without hesitation, reckon the whole aggregate property of the house, telling that he had so and so many sheep "in the house". And he may dispose of the whole flock of the house almost in the same way as if they were all his own private property.

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[1] According to the distinction made by Mead, 1937, p. 17.

In other branches of the islanders' economic activities the co-operative unity of the house is less conspicuous, as the members of one house only seldom work together in one compact group as in the potato patches. There is an elaborate division of labour between the sexes and between the different age groups. Moreover, in all their more important economic activities the islanders like to work in gangs, in more or less transient co-operative units composed, almost casually, of members of different houses. Likewise, the boats and the cattle, both important economic factors, are mostly owned by groups of joint owners, and these groups are always composed of individual members of different houses, usually the house fathers, but not always so. Nevertheless, whatever productive work is done by an individual islander, either alone or as a member of a transient co-operative group, is done so to say on behalf of the house of which he is a member. A Tristan islander always works for the benefit of his house, and the results of his work, as well as the yields of his property, are always placed at its disposal. Whenever he joins a working gang, therefore, whether a fishing gang or a hunting gang, a gang going "round the beaches" for apples or for feathers, he may be regarded as a kind of representative or delegate of his house.

These conditions, of course, have a connection with the fact that the house in Tristan da Cunha is not only an important productive unit, but, above all, the consumptive unit of the community.

As we have seen, it is a normal custom for each house to occupy a dwelling of its own. And though in the case of a compound house the dwelling is usually divided between the component families, the house still forms a cohesive and well defined consumptive group, with an exclusive community in household and meals. This community of household is also the characteristic by which a house is recognized as distinct from the family, and obtains also in the exceptional case mentioned above, viz. that a member of the house, forming a family of his own, lives in another cottage apart from the rest of the house.

The independence of each individual house as a consumptive unit is clearly expressed in the reciprocal position of the dwellings. As has been stated above, there are no regular groupings of the dwellings, they are scattered over the settlement area just in a haphazard way. All the cottages have a marked front towards the north, where usually all openings (windows and doors) are concentrated, and there is no instance of several cottages facing eachother or being grouped round a common yard. Only in three cases have two cottages been built together with a common gable, and in three other cases, as mentioned above, the members of two houses live together under one roof. But, though in four of the cases this fact may be taken as an expression of a close relationship between the two houses, each house remains, even then, an absolutely self-dependent consumptive unit.

The house being a productive and consumptive unit, it is naturally one of its most important functions to provide for the material support of the leisure part of the population, *i. e.* those persons who, on account of young or old age or for physical defects and sickness, are extempt from labour. Here in the first place must be mentioned the children, then also the old people.

In close connection with the material care of the children, it is also an important function of the house to provide for the education of the children, their training for, and adjustment to, their physical and social environment. It might be discussed whether this is the function of the house or of the family. The education and training of the child is naturally the task of the parents, so also in a compound house, the grandparents being probably apt to spoil the little one. However, it is the house as a whole, whether compound or not, that forms the immediate social environment to which the child must first adjust itself. And its acquisition of the knowledge and facilities necessary for its future life is not performed through the teaching or systematic training by this or that tutor, but simply by placing the child as a more or less co-responsible co-operative factor into the economic activities of the house. From about the age of 8—10 years, as mentioned, its labour is claimed in the co-operation of the house, at first, of course, in the more easy tasks, and always more exacting as the child advances in ability and age.

There is a tendency in nearly all societies to allow part of the education of children to be performed by specialists in schools or similar institutions, particularly when the education goes beyond the mere adjustment of the child to its immediate physical and social environment. So also the Tristan islanders mostly leave it to the missionary in his school to teach the children reading and writing, and the elements of arithmetic, etc. However, the efficiency of this school-keeping of the missionary has lately been very low, and so also this part of the education has been transferred to the house, some of the parents trying to teach their children what little they know.

Besides these economic and cultural functions the house has also what we may call a specific social function, which is no less important than the other funtions. The gregarious drive in man evinces itself not only in the need of society on the broadest possible scale. There is also a most exacting need of a more intensive social relationship which can only be realized in comparatively small groups of a more exclusive and intimate character. This need is satisfied in various ways, in cliques and friendship groups. But in most societies it is the family, par excellence, that provides for such an exclusive and intimate social relationship.[1]

In Tristan da Cunha the satisfaction of this need is almost exclusively the function of the house. The house, therefore, is a strongly solidary social unit, and this not only in an economic respect. There is between the members of each house a strong sense of affectionate solidarity which evinces itself in manifold ways in the islanders' daily convivialities. The house, in other words, is the focus of its members' loyalties and social interests. Domestic life, therefore, plays a prominent part in the social life of the islanders. Certainly, it is not rich in a variety of forms, like the domestic life of last century Europe. There are no domestic games or other forms of common entertainment for the house group. Only in the evenings — and this is almost as sure as a law of nature — when the day's work has been finished, the members of the house are found sitting together in the kitchen, some of them occupied with some kind of domestic industry, such as knitting, sewing of moccasins, etc., others just sitting and talking. The only exception is that the young men in the evenings are regularly found in the house of their sweethearts. But though the domestic life of the Tristan islanders may be poor in forms, it is distinguished by a strong sense of solidarity, by affectionate intimacy, and mutual confidence.

These are the more important functions of the house in Tristan da Cunha. As will be seen, even in this respect it corresponds most closely to the family in other human societies. It will also have become clear that the family in the Tristan sense of the word will frequently be unable to perform these functions, as it may consist of only one person.

The Functions of the Family. The functions of the Tristan family lie on quite another level. Here, too, the main stress lies on the economic aspects of life — the functions of the family are even exclusively of an economic nature. But the family does not function as an independent self-supporting economic unit. Whenever the individual family comes into action, it is only as a part of the community as a whole, and always in close co-operation with all the other families of the community. In other words, the exclusive function of the family is to form an administrative unit for the organization of certain economic functions ascribed to the community as a whole.

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[1] This corresponds to what Baber calls the "affectional" function of the family (1939, p. 586, 588 sq.).

This administrative rôle of the family — and even the family in the Tristan sense of the word — has a historical background.

It will be remembered that the community of Tristan da Cunha was founded as a business enterprise, as a "firm", wherein equal distribution of expenses and profit was made a basic principle. And such distributions continued for a long time to be an important trait in the communal life of the islanders. It is not known how this principle was combined with the institution of joint ownership, or with the probable fact that the whole community formed one single consumptive unit. But as far as there were any such distributions at all, they obviously — and quite naturally — had the character of an equal distribution between the individual members of the "firm". Members of the "firm", however, were only the men, while their wives and children had merely a secondary status in the community as family members. In other words, the administrative unit of the community was from the outset the individual adult male — with or without a family, and regardless of the size of his family. Later on, as the children of the original settlers grew up, it must have become the rule that a young man was recognized as a self-dependent member of the "firm", and an administrative unit of his own as soon as he had contracted marriage and had got his own family, whilst on the one hand the married women and on the other hand the unmarried children remained a kind of secondary members attached to their respective husbands or fathers. This was also in accordance with the patriarchal attitude that belonged to the social heritage of the original settlers, as well as with the increasing importance of the individual family, or "house", in Tristan da Cunha as a self-dependent productive and consumptive unit. Thus, actually, the family became the administrative unit of the community, regardless of the size of the individual families.

In this way the system was created which is still in force for the handling of stores bought on behalf of the whole community on board passing ships. In 1876 this system seems to have been fully developed. According to the report of Captein Lindesay Brine, of H. M. S. *Wolverence,* who visited the island that year, these stores were equally divided among the families, while each family in turn had to provide for payment in form of cattle, potatoes, and other vegetables (Correspondence, p. 3). It does not emerge from Captein Brine's report whether the word "family" had at that time acquired its present restricted sense. However, it is obvious that this situation, wih an important administrative function ascribed to the family, would create the need of a firm and stable limitation of this administrative unit, so that the word "family", when used about this unit, *i. e.* when used in connection with the distribution of stores obtained by the community as a whole, only comprised the group consisting of mates and offspring with the exclusion of married children.

But there still remains to explain the peculiar fact that this restricted family persists in being recognized as a "family" and a functional unit of its own, even when it has been reduced to only one person and forms part of a compound house. For in the compound house the family is no longer a productive and consumptive unit. It is a striking fact, therefore, that in this special connection it is reckoned as an economic unit of its own and actually also functions as such.

This fact has obviously again some connection with the rigorous patriarchal system of this community. According to this system, as we have seen, the men were probably only recognized as full members of the community from the day they married. But then, of course, they continued to be recognized as such for their lifetime, even when all their children had got their own families. And in case of the death of a paterfamilias it is quite conceivable that his rights and title were transferred to his widow, who usually seems to have been equal the heir of his property, and also to an unmarried son or daugther.

On the other hand, it is quite possible that the fact should be seen on the background of the situation that arose as a result of the life-boat disaster in 1885, when the Tristan community suddenly became a community of widows and children. Normally, a widow with children would be supported by her near relatives, which is even to-day the rule, and if she was alone, she would find support by attaching herself to the house of one of her married children. But in the situation of 1885, with 13 widows and only 7 adult men, the supporting of these many widows and their children was obviously regarded partly as a social duty wherein the whole community was concerned. So it was possibly on this background that widows were allowed to take a full share of goods obtained in common from a passing ship, even in cases where they were otherwise supported by a son or son-in-law, forming part of his house.

However this may be, sooner or later it became the rule that a family was recognized as an administrative unit of its own as long as one of its members remained, no matter whether this last member formed part of another productive and consumptive unit or not. Gradually, then, the term "family" has been reserved for this administrative unit, while "the house" became the common denomination for the family in the proper sense of the word.

This system of dividing economic assets according to "families" — regardless of the size of the individual families — may seem rather strange to-day, especially in view of the fact that a compound house of, say, four persons takes two full shares in the goods obtained, or as many shares as there are "families" in the house, while a family of eight persons only gets one. However, there is some reason in the system as long as the families pay alike for the shares they get. This is the case in the trade with passing ships, each family taking its turn to provide the supplies offered for the ship's use. But, obviously after the analogy of this case, the Tristan "family" has also become the administrative unit in connection with other economic functions of "the island", where a balance between rights and duties is no longer in question. As we have seen, "the island" has undertaken the charge of the personal support of the resident missionary (and his family if he has one), and this task is organized so that each family in turn takes to his house a certain minimum of food for a week. Lately the family has even become the unit for the distribution of stores etc. sent as gifts to the island. Formerly, these gifts were handled differently from the things bartered on behalf of the community, being divided equally among the individuals. But since the erection of a storehouse, wherein all gifts to the island are stored under the supervision of the missionary, with a distribution of small rations every fortnight, the system of an equal distribution among the families was even transferred to these stores, probably on account of a misconception on the part of the missionary — or just for convenience. However, this change in the distribution of gifts to the island has been introduced without the consent of the islanders and partly against their wish, as, in this connection, the distribution among families is considered unjust. Besides, it is a breach of an old custom.

Thus great administrative importance is still attached to the family in Tristan da Cunha, in spite of the fact that the trade with passing ships has been so much reduced and has, for the greater part, been transferred to a private and individual footing. And even in the minds of the islanders, the family is decidedly the most important unit, so that it is much more important for an islander to know how many families there are on the island than to know the number of individuals in the community, or the number of houses.

Other Groups Determined by Kindred.

The Clan. The naming customs in Tristan da Cunha are the same as in most European societies, in Europe as well as abroad. Every individual has one or more individual names, which are given him by baptism

("Christian names"), and a "surname", which is inherited from father to son, while the women adopt the "surnames" of their respective husbands. In other words, there is in Tristan da Cunha, as in Europe, a patrilineal naming. As in our own society, therefore, the patrilineal clan[1] appears as an easily distinguishable group, including all persons bearing the same "surname". Thus we may distinguish seven patrilineal clans: Glass, Swain, Rogers, Green, Hagan, Lavarello, and Repetto.

However, these groups are little more than aggregates of individuals, and have practically none of the aspects of a social group. A clan never appears as a distinct co-operative unit and, on the whole, never takes action as one body. It is characteristic that in their language the Tristan islanders have not even a symbol for this group, the term "family" being exclusively used in the narrow sense described above. A certain group consciousness, nevertheless, could be traced in some instances, especially in the three clans Glass, Green, and Repetto, who are all descendant of prominent persons who had in turn acted as leaders in the community.

The Joint-Family. Likewise, — and even this is in accordance with European society — a certain group consciousness may be said to exist regularly between the members of the joint-family including parents, their children (married and unmarried), their children-in-law, and their grandchildren. These are the persons whom the islanders include in the term relations. However, as in European society, even this group practically never functions as an inclusive whole. Only on certain solemn occasions within one of the relevant families or houses, such as an important birthday, it is the custom to give a dinner for the "relations" in the home of the object of the feast. In other words, such an occasion is an event wherein in the first place the joint-family is concerned. An inclusive co-operation of the whole group in economic affairs is absolutely out of question.

Social Bonds. On the whole, compared with the family and the house, other kinship groups play an inconsiderable part in the social life of the Tristan islanders. Indeed, it is more correct in this connection to talk about social bonds, and not about actual groups. Distinct and clearly limited groups based on kinship, that go beyond the narrow family or house, and appear outwardly as firm and solidary units, are practically never found. But there are more or less firm or loose social bonds between blood relatives, in the same way as in the European society. It is again 19th century Europe that has given the pattern.

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[1] I use the term "clan" to indicate the "unilineal descent group" (cp. Linton, 1936, p. 197).

Certainly, the Tristan islanders must be said to have a strong consciousness of kin, and the greater part of them know well, not only their own blood relationships, but even those of the whole island, which, on account of the strong degree of intermarriage, are of a rather complicated nature. Kinship may be reckoned through three generations, thus including second cousins. The kinskip terminology is the same as in English, and, as there, the different terms indicate not only different degrees of proximity of blood, but also different strengths of the social bonds.

Naturally, the strongest bonds are those existing between parents and children, and between brothers and sisters, even after the family has been dissolved. Bonds that are formed during childhood are always strong, and in Tristan da Cunha we must say that the bonds existing between brothers and sisters, as well as those between parents and children, are very strong and enduring. This is also the foundation for the existence of the joint-family. These bonds are also — as in Europe — transferred to relatives once (more) removed, so that quite effective bonds are established also between grandparents and grandchildren as well as between uncle (aunt) and nephew (niece). In accordance with English (and European) usage, when mentioning or addressing an uncle or an aunt, a young (immature) nephew or niece will mostly prefix "Uncle" or "Aunt" to the name, indicating an attitude of respect towards the older generation. Under certain circumstances, when the social bonds are correspondingly strong, these titles may even be extended to a grand uncle or a grand aunt.

Between cousins the social bonds are mostly already rather weak, and between second cousins as well as between cousins once removed they are so weak that they are only seldom of any practical importance, though the relationship is mostly recognized in theory.

Remarkable, and peculiar to Tristan da Cunha — at least in relation to European society —, are the strong social bonds that are established through relationship by marriage. These bonds are just as strong and just as effective as those between brothers and sisters. And they embrace not only the actual brother- or sister-in-law, but even his or her brothers and sisters, or a brother's or sister's "in-laws". Our kinship terminology has no denomination for this kind of relationship. In Tristan da Cunha all these persons are encompassed by the terms brother and sister. And it should be noted that this extension of the sense of the terms has not involved any weakening of their content. As mentioned, there are very strong social bonds existing between brothers and sisters, and in this respect there seems to be no difference between real and socially ascribed brothers and sisters.

These social bonds between (real and socially ascribed) kinsfolk are effective in a variety of ways. Undoubtedly, a close relationship by blood or by marriage does not necessarily involve a corresponding close social relationship between the related parts. Thus, as we have seen, the kinship groups — with exception of the family and, to some extent, of the joint-family — do not appear as distinct and permanent social units within the community. And in particular do they not form any permanent inclusive co-operative units. But whatever social relationships of a closer character are to be found in Tristan da Cunha, and whatever associations are formed for economic or mere social purposes, they are all — practically without any exceptions — based on some close relationship by blood or by marriage.

From this angle it may be of some interest to examine some of the small selected co-operative groups of a more or less transient nature that are so characteristic of the labour conditions in Tristan da Cunha.

Among these co-operative groups the firmest and most enduring — and, therefore, the most conspicuous and best fit for a comparison — are those formed by the joint owners of some real object, such as a flock of cattle, or a boat. In 1938 there were 27 different gangs of joint owners to cattle. The greater part of them (23) numbered only two members. The compositions of these latter gangs are shown in Table 6.

Table 6.

The composition of co-ownership gangs of only two members.

	Father and son	Father and son-in-law	Brothers (real)	Brothers (soc. ascr.)	Uncle and nephew	Cousins
Number of gangs .	2	1	4	13	2	1

What is shown in this table is (1) that all these gangs are composed of persons who are closely related by blood or by marriage, and (2) the relative strength of the social bonds generally connected with the various degrees of blood relationship. Remarkable is the high figure for gangs composed of socially ascribed brothers, which shows that these associations are even more than three times as frequent as those between real brothers. However, here we must take into consideration the fact that the number of a man's socially ascribed brothers is normally much greater than that of his real brothers, so that the chances of an association between socially ascribed brothers are much more numerous. When due account is made for this fact, it is probably correct to say that the social bonds between socially ascribed brothers are of equal strength and effectiveness with those between real brothers, which is also in accordance with the fact that the Tristan islanders use the same term, "brother", for both kinds of relationship.

There are similar conditions in other associations. Of the four remaining gangs of joint cattle-owners one is composed of three members, namely an elderly man, his son, and his nephew. Another gang is composed of four brothers (real and socially ascribed). Still another, also having four members, is composed of three brothers (real and socially ascribed), and a forth member who is the cousin of two of the other members and the (socially ascribed) brother of the third. Thus there is only one gang of joint cattle-owners which is not entirely based on close relationship by blood or by marriage, viz. that which owns the bulk of the cattle in Stony Beach, and which is commonly called "The Eight" from its having eight members. This gang, however, has a comparatively long and peculiar history, which may account for its peculiar and seemingly casual composition.[1]

Likewise, in any of the groups of joint owners of a long boat, there is never a member who has not at least an indirect affinity through some member of the group with all the other members.[2] The typical example is given by the *Lorna*. This boat is owned by a group of six "brothers" consisting of two groups of real brothers which are related by marriage, besides the father of one of the groups. Another boat, the *Long Boat,* is owned by four socially ascribed brothers and four real brothers, the latter being the sons of one of the former. An so on.

Even small, seemingly accidental, and very transient, co-operative groups, such as fishing gangs, gangs of molly hunters or berry pickers, are always composed in a similar way, of persons who are closely related by blood or by marriage. In the majority of cases they are made up of real and socially ascribed brothers. Actually, I only once recorded a fishing gang where one of the members had no socially recognized relationship to any of the other members.

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[1] It was founded some forty years ago as a group of 15 members comprising probably all the married men of that time. These 15 men started the utilization of the pastures in Stony Beach by placing a bull and a cow there, which were for some years allowed to increase freely. Then seven members of the gang killed off their parts, thus reducing the gang to eight members, four of which have subsequently been replaced, their parts having been transferred to other persons by heritage, testamentary gift, or sale.

[2] By "indirect affinity" I mean for instance this: A is the father of B, and C is the "brother" of B (because his sister is married to B's brother). Here, there is no socially recognized relationship between A and C. But still they may belong to the same co-operative group if B is also a member. There is an indirect affinity between A and C through B. And the chain may be continued further, so that the group may include, for instance, a cousin of C who has no relationship whatever to either A or B.

Thus the kinship group, though it does not generally appear as a distinct, inclusive social unit, or a co-operative group, still forms what we may call a social aggregate, an easily distinguishable circle of mutual acquaintance. And it is within this circle that the individual chooses the objects of his more close social relationships and the companions of his co-operative associations.

Sex Groups and Age Groups.

In connection with the inner structure of the house we have already touched on the question of the social relationship between the two sexes, namely in as far as the relationship between husband and wife is concerned. We will now return to the question on a broader scale and consider the social relationship of the two sexes more in general.

In Tristan da Cunha, in accordance with 19th century European society, the social distinction between the two sex groups may be said to be rather strong, at least as compared with modern European society. Of course, Tristan da Cunha has been very little influenced, if at all, by the ideas of the feminist movement, which, even in the course of the last century, in a so decisive way has changed the attitudes of the two sexes towards each other. Not least in this respect does the Tristan community make a strange, old-fashioned impression on the modern European visitor. Thus in the attitude of the two sexes towards each other we find many traits which we should describe as old-fashioned prejudices, and which are even a heritage from European society of the early 19th century. Only is it obvious that in this small and simple community social differences are not so marked as they were in the more complex European society.

One basic trait of the social distinction of the sexes which is found in all human societies, is the division of labour that usually exists between them and which is, for the greater part, based on the natural differences in physical and psychical outfit. Thus, in Tristan da Cunha, there is a most elaborate division of labour between the sexes.[1] It is only in the performance of certain special kind of work, such as potato digging, the harvesting of apples, etc. that there is a direct co-operation of the two sexes, both men and women being occupied in the same kind of work. And even then the field of each sex is sometimes clearly defined.

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[1] On the division of labour, see below.

These conditions are also coupled with a rather strong group consciousness of the both sexes. There are certain things that a man would never do just because he is a man, and still many more things that a woman would never do just because she is a woman. And this applies not only to the division of labour. It concerns all their attitudes and behaviour. In other words, each sex has its own definite pattern of attitudes and behaviour, and the adhesion to this pattern is a matter of loyalty towards the sex group in the first place, of group pride and of prestige. Espesially the women are limited in their free display by strict rules as to what befits a woman, and these rules are not only concerned with what we usually call coyness. For instance, as we have seen, the claims laid to a correct dressing are much stronger for a woman than for a man. And the same applies to their speech and to all their behaviour. Compared with the women the men are much more free in their behaviour. But even they have their definite group pride as men, which makes certain demands for manly behaviour.

This group consciousness of both sexes finds an expression, and nourishment as well, in certain associations and assemblies which are limited to either sex with the exclusion of the other. Here, for one thing, the men have their working gangs where they are united in a common, mostly exclusively virile, work. But, above all, mention should in this connection be made of a custom which obviously has some relevance to the group consciousness of the male sex like the evening assemblies in the "pub" of a modern European village: Every Sunday after Service the men assemble on the grassy slope outside the church, at the eastern gable wall, while the women and children go home. This assembly is absolutely informal. To the men's own consciousness they just gather to have a chat and to while away time until the dinner is ready. But in this informal assembly we obviously have to see a rudiment of a men's association such as we are met with in many primitive societies, as well as of a "council". A strong exclusivity is maintained in connection with this gathering, not by means of force, but by common consent. Actually, I had no opportunity to observe how this exclusivity was enforced. The only thing that I could observe was that women and children, just as a matter of course, kept away from this assembly. Obviously it has a great importance as an expression of, and emphasizing, the solidarity of the men as a social group.

There is no corresponding assembly of all the women. Neither do the women work so much in exclusive gangs as the men do because each woman is in her work more confined to her own house. The greater is the social significance of the few instances where women do work together in gangs to the exclusion of the men. In the first place mention should here be made of the "carding gang". When the women card and spin their wool, they always do it in gangs. The woman who is going to have her wool spun, calls her female relatives for assistance, and the work is divided so that the married women card while a couple of young girls do the spinning. The men of the house are seldom or never present. They usually leave the house when there is a carding gang. This group is obviously the most important place of womanly gossip. Here the women discuss their own affairs and everything in connection with their special work. And here they exchange the latest news. Another very important meeting place for the women is the watering, where they fetch water and wash their clothes. Especially on Mondays, which is washing day for the whole settlement, there are small assemblies of women round all the washing places. And, again, these assemblies play an important social rôle, in the first place as exchanges for news and, on the whole, as womanly parleys, and, then, as emphasizing and nourishing the group consciousness of the female sex.

It is obvious that there is a close connection between the relationship between husband and wife, and the relationship existing between both sexes in general. Traits of the former relationship, except the more intimate ones, are apt to be transferred, *per analogia,* to the latter. Especially is this the case with attitudes concerned with dominance and subordination. Thus, in a community with a pronounced patriarchal family organization, it is very probable that the male sex group in general will be found to hold a high degree of dominance over the female sex group. And this is also the case in Tristan da Cunha. As we have seen, the Tristan community was originally founded as an association of men wherein the women had only a secondary status as wives of their husbands, and in this respect conditions have been subject to very little change. The Tristan community is still a pronounced male community. The kernel of the community is formed by the men, while the women hold a subordinate and retired position in relation to them. And these circumstances — as is usual under similar primitive social conditions — are simply taken as the natural state of things, even by the women and do not need to be guarded by rationalizing doctrines about the physiological and psychological differences between men and women, such as are common in more complex and more highly cultivated societies. There is no sign of discontentment with the present state of things on the part of the women, and no tendency or wish to revolt, nor a need of an "explanation". On the contrary, like the European women of the time before emancipation, the Tristan women seem to regard subordination to the male sex as a trait of particular womanliness which in some way they are proud to realize in their attitudes and behaviour towards the other sex.

The men on their side are obviously conscious of their dominant position in relation to the female sex. But there is no arrogance in their attitude towards the women. Like the relationship of the husband towards his wife, the relationship of the men towards the women in general is distinguished by gallantry and care in accordance with the strong claims to considerateness and respect for the individual which is a so prominent trait of their entire view of life.

Also the social distinctions of different age groups are rather conspicuous in Tristan da Cunha, and are marked by easily recognizable changes in the status and rôle ascribed to the individual by society, as well as in the individual's own attitude and behaviour.

It is a matter of course that in any society the status of the child is one of relative freedom from duties in point of work and from any kind of responsibility, but also one of dependence and subordination in relation to adults. However, the claims laid on the child, both in point of responsibility and of subordination vary greatly in different societies. In a community with a pronounced patriarchal family organization, the subordination of the child is apt to be particularly stressed. Here also the claims to responsibility are usually made at a comparatively early age. For even here the relationships of the family are apt to be transferred to a wider social coherence.

Thus even in Tristan da Cunha the subordination of the child to the adult is very pronounced. Great stress is generally laid on teaching the children veneration and politeness towards the older generations, and a readiness to serve. Nobody, however, can exercise actual authority over a child (for instance inflict a corporal punishment on it) except the parents.

With respect to the claims laid on the child in point of service, there is a conspicuous difference in the social status of the young child and of the boy or girl more advanced in age. Early childhood is the time of almost absolute irresponsibility, and of relative freedom in every respect. The children are always treated with love and care, but otherwise, of course, there is nothing like respect in the attitude of the grown-up people towards the small children. They are just skittery, a term which indicates, above all, an attitude of indulgent and affectionate contempt of these lovely, though useless creatures.

From about the age of 10, as we have mentioned above, sometimes even before, society starts to claim the service of the child in different kinds of work and, on the whole, imposes certain duties upon it, and from now on the child plays an always increasing part in the economic life of the community. Though this growing importance of the child by no means involves a lessening of its subordination to the adult, or a decrease in its dependence on its parents, it clearly gives the child a new and more important rôle and, therefore, even a more evident status in the community. It has passed over into the status of adolescence, the period of preparation for, and gradual transition into, socially recognized maturity. Above all, the child is itself in most cases obviously conscious of its growing importance. In this respect there is a certain class consciousness, or class pride, of the adolescent child. It is no more a "skittery", and is generally eager to prove this by a conscientious fulfilment of all tasks given to it, especially by its parents.

It is a matter of course that the transition from the status of the "skittery" to that of the adolescent youth is a gradual transition. And the same applies, to some degree, also to the transition from the latter age group to socially recognized maturity. Actually, as we have just seen, the later part of childhood is a continuous and gradual transition from the status of the child to that of he adult member of the community. Besides, this transition is a process which the young boy or girl tries to carry out as unnoticed as possible, as a matter of self-evidence. Nevertheless, there are certain reference points by which it is possible to draw a rather sharp line between the two age groups.

The most important of these reference points is work. A man must, in the first place, be able to do a man's work. This is not only, perhaps not even primarily, a question of physical strength. If a youth is to be recognized as a full-grown man, it is not enough that he should be able to do the heaviest kinds of work under the direction of his father or some other adult. He must be able to do it of his own accord, on his own initiative. In connection with this he must also be able to assume a personal responsibility. As soon as a young man has acquired these abilities and behaves accordingly, he may — as a matter of course and without any ceremonies — join the men's working gangs and other gatherings, also the Sunday assembly outside the church, and he is from that moment recognized as one of the men. From the same time the gradual disbandment of the family ties usually sets in, especially the emancipation from the authority of the father. Simultaneously, too, the young man will also assume a man's dress, with long trousers, and, on the whole, make more definite claims to correct dressing.

The actual age for the transition from boyhood to manhood varies slightly between 16 and 17 years. Here the physical development of the boys seems to play a decisive rôle, especially, may be, the completion of the change of voice. In any case, the line between men and boys could be drawn exactly after the condition of the voice, *i. e.* whether it had passed mutation or not.

As far as the girls are concerned, their transition from childhood to socially recognized maturity is less conspicuous to the outside observer than that of the boys. This has probably some connection with the fact that the female group is less exclusive in relation to the children than the male group is, the children — especially the small children and the girls — keeping to their mothers or other female relatives. On the whole, there is beforehand, naturally, a much more close relationship between girls and women than there is between boys and men. Besides, it may be of some importance that the female group is a group that holds a subordinate status in the community. Thus, while the boys pass from a status of subordination to one of relative dominance, the girls just pass from one state of subordination to another, which, of course, involves less crucial changes in attitudes and behaviour.

However, even the girls in some way mark their transition from childhood to mature age by wearing a longer and more correct gown, doing up their hair, exchanging the cappie for a coloured kerchief, and, on the whole, by assuming a more formal and womanly behaviour. It seems to be the rule that this change in the outer appearance is undertaken when the girl has completed her 14th year, which corresponds to the average age for menarche (cp. Henriksen and Oeding, 1940, p. 33).

We have already remarked that a young man is always to some degree subject to his father's authority as long as he remains living in his house. Thus, though the young man's claims to a personal independence from the paternal authority are naturally stronger than those of a child, and though these claims are, partly at least, socially recognized, the final emancipation from this authority is only completed when the young man contracts marriage to start his own house. Besides, the married man's position as the head of a family gives him a new and more important economic status in the community, which, above all, includes the right to take a share of his own in the goods obtained from outside through common barter or as gifts to "the island". Marriage, therefore, marks a most important landmark in a man's life, and the border between two periods wherein he holds vastly different social statuses.

Nevertheless, it is very doubtful whether we may talk about a recognized social distinction in Tristan da Cunha between married men and bachelors. Actually, the change in social status resulting from the fact that a man contracts marriage is more a change of status in the house than of status in the community as a whole: From a subordinate member of the house he has become the head of a house, which, of course, is a most important change in his position with regard to the other members of his house. But this involves no recognizable change in his relationship to community members outside his house. There are no privileges or special rights, not even a special prestige, connected with the state of marriage, and there are no special duties for bachelors in relation to married men — or *vice versa.* Actually, even the above mentioned economic rights and duties of a family father are not his personal rights and duties, but the rights and duties of his family, a detail which finds expression in the fact that the shares are mostly received by the wives on behalf of their families. Neither do married men nor bachelors form any exclusive groupings of their own, and in the working gangs and other men's assemblies there is no difference in status according to a member's married or single condition. On the whole, there is no difference whatever in the pattern of attitudes and behaviour towards society ascribed to bachelors and married men.

With the women conditions are different. It is true that also here the change of status resulting from marriage is in the first place a change of status within the house: The woman who has contracted marriage, has thereby become a self-dependent housewife, subordinated in her own house to nobody but her husband (who does not interfer with her special work). However, for the women as contrasted to the men, this change also involves a certain change in status in relation to society on the whole.

As we have pointed out above, the status within the house of a grown-up daughter is somewhat different from that of a grown-up son. She does not enjoy the same amount of freedom and independence. As we have already suggested, this has probably some connection with the work. According to the division of labour between the sexes prevailing in Tristan da Cunha the women are much more closely confined to the home than the men are. Thus, while the men have most of their work, most of their interests and duties, outside the house, all the interests and duties of the women are concentrated on the house and everything connected with housekeeping. A grown-up daughter, therefore, has not the same opportunity as a grown-up son, as long as she lives in her mother's house, to start her own business and acquire interests of her own independently of those of her mother. It is true that her status is more exacting in point of work than that of an adolescent girl, and in some cases even the greater part of the household work may be left to her; but even then she always remains working under the direction and supervision of her mother. Thus she has no opportunity to assume a personal responsibility until she gets her own house. It is only through marriage that she becomes an independent woman, responsible for the details of her work to nobody but herself.

It is probably on this background that we must see the fact that even in the community as a whole the spinsters hold a subordinate status in relation to married women. Actually, as long as a young woman remains unmarried, she is only recognized and denominated as a "girl" and is not paid the same respect as a married woman. Above all, married women observe a certain degree of mental if not physical exclusivity in relation to spinsters. It is true that unmarried women are not excluded from the small assemblies of women at the watering, in the carding gang, or elsewhere, and they certainly take part in conversation. But obviously not on exactly the same terms as married women. There is a nuance in the attitude of the married women towards each other and towards the unmarried "girls", a nuance which is, may be, hardly recognizable for a casual outside observer, but which is nevertheless there. It may be expressed so that the married women have a certain *pondus* which unmarried women have not got. This difference in the status of married and unmarried women is conspicuous in the carding gang. It is characteristic that it is even called a "carding gang" and not a "spinning gang", though the spinning is obviously an as important and certainly the most difficult part of the work. Apparently the carding is attended with much more prestige than the spinning is, and the carding is only done by the married women, while I never saw a married woman spin. The spinning is always done by the unmarried "girls" as a kind of duty towards the "older" generation, namely the married women. As one of the married women informed me: "Now it is their turn; when we was young (meaning when they were unmarried), we had our turn to go round and spin." Some significance may be ascribed in this connection to the assembly of women sharing out stores from a passing ship or receiving rations or mail from the missionary, for this assembly is exclusively an assembly of married women. Even when mails are given out, wherein the spinsters are usually just as much concerned as the married women, the spinsters always stay at home, afterwards receiving their parcels and letters from their mothers or some other married woman who might have offered to bring the things to the addressee. It is also characteristic — and in accordance with the last mentioned custom — that the term "all the women" only seems to include the married women.

In nearly all ethnographic literature we meet with some sentence which indicates that old age is attended with special reverence and prestige, and it is commonly regarded as a general rule which is almost equal to a sociological "law", that the "old men" are invested with a special authority which makes them the natural leaders or holders of governmental control in society, just because they are old (cp., *e. g.*, Thurnwald, 1931/35, vol. 2, p. 270 sq.; Landtman, 1938, p. 21 sq., 311). One has even tried to give this rule a psychological explanation, so as to make it appear as an outcome of man's mental structure (Aall, 1938, p. 78 sq.). In societies with an elaborate governmental organization or with a pronounced individual leadership, no doubt, the veneration and respect paid to certain persons easily grows into a habit, so that the more influential persons may, on the basis of their once acquired prestige, retain a dominant position in society to an advanced age, even in competition with younger aspirants. And in still many more cases the dominant position of older persons is maintained by means of religious taboos or by their supposed magical power. However, it seems to be a somewhat premature conclusion to accept as a general rule in human society, that old age is in itself accompanied by great social prestige.

In Tristan da Cunha as in probably all societies and social groups where manual labour plays an important rôle, the commencement of old age is recognized as soon as a man's or woman's physical strength and working power begin to decline. Advancing age, however, does not involve any perceptible change in social status. Only in case there is no grown-up son or daughter in the house to take over part of the work, certain claims of helpfulness are made on relatives, especially on married sons and daugthers. The actual status of "old age" is entered when an old man or woman definitely retires from work, resigning to a leisured state.

In Tristan da Cunha, on account of the life-boat disaster in 1885, the distribution of the population amongst the different age groups is somewhat irregular (see p. 49 sq.). Thus there are, above all, comparatively few really old people. And as the Tristan islanders to a remarkable degree preserve their physical strength and working power far up in age, there are very few persons who have actually entered the status of "old age" by definitely resigning from work. As a matter of fact, in 1938 there was only one man who had entirely and definitely given up work exclusively on account of old age, viz. Old Sam Swain, aged 80 and the oldest inhabitant of the island. Besides, there were two men, aged 66 and 65, and one woman, aged 69, who had resigned on account of old age combined with ill-health. Nevertheless, this material is sufficient to give an impression of the status of old age in Tristan da Cunha.

As to the economic status of the old people, it is usually secured through a certain accumulation of property — certainly on a scale corresponding to the general economic conditions of Tristan. An old man is usually the owner of a dwelling well equipped with woodwork, a very valuable property in Tristan da Cunha. And if he has been foreseeing and laborious, he will also have acquired a fine herd of cattle and a flock of sheep, and he will have a comparatively large area of land under cultivation from the time when he was still entertaining his children, probably more than he needs any longer for his own use. Thus, if he does not still dispose of the working power of a grown-up but unmarried son, he may give room in his house to a married son, a son-in-law, or other young relative, to whom he also leaves the working of his potato patches and the herding of his cattle and sheep. And though in this way he becomes somewhat dependent on the labour of his "lodger", the benefit will usually be on the side of the latter. For, as the two families in a case like this will usually form one compound house with a common household, the "lodger" will also have the benefit of the old man's economic status, which is very likely to be better than his own. Besides, he stands a fair chance of becoming the owner of the dwelling and all the other property when the old man dies.

Thus the status of old age is usually not — as one might expect — one of economic dependence either on relations or on the community as a whole. An old man usually also retains a dominant position in the house as long as he lives, either as family father (if he has still grown-up but unmarried sons in the house) or as the owner of the dwelling of a compound house.

Nevertheless, in relation to society as a whole, the transition to the status of old age involves a considerable loss of prestige. In Tristan da Cunha there is definitely no precedence of old age, and no special respect or reverence are paid to old people by the younger generations of men and women. No matter what the merits of a person may be, and no matter what has been his social prestige in the days of his prowess, from the moment he enters the status of old age he is no longer able to exercise any influence in society. Certainly, the old men and women are not treated with actual disrespect. Like any other individual on the island they are always respected as personalities; but their views and opinions do not count when matters of real importance are discussed.

This loss of prestige and influence in the community has an obvious connection with the giving up of work. Just as work is the most important reference point for drawing a dividing line between "skittery" and adolescent youth, as well as between the latter state and manhood, so even here the abstinence from work is decisive of a man's or woman's status in old age. The leading social group in this community is formed by those who do the work. Resigning work always means at the same time resigning membership of the leading group. Once when an important matter was being discussed by a group of islanders, Old Sam Swain informed me about his own opinion and added: "But I 'as nothing to say, for I 's too old and don't work." Also a certain physical exclusivity of the working part of the population towards the old people is the natural consequence of these circumstances, though it is not implied in the general attitude towards them. As we have seen, the social life of both men and women is, above all, displayed and nourished in the working gangs, and the social significance of these working gangs, their importance for the group consciousness of the supporting social groups, can hardly be overestimated. To be excluded from these assemblies, therefore, always means something more than the mere economic fact of being excluded from the benefits of rational co-operation. It means a partial exclusion from the social life of the leading and supporting parts of the community. And this is exactly the fate of the old people — as a natural consequence of the fact that they do not work.

There remains to be said a few words about the status of the widows. As a widow always takes over the property after her late husband, the economic status of an old or elderly widow is just the same as that of an old man. She will probably be in possession of a good dwelling, she will have land under cultivation, and cattle and sheep. And if she has no grown-up but unmarried son to do the necessary male work for the support of the house, she may attach herself to another, full-sized family, usually a son or son-in-law, forming with this family a compound house. In case she should have no private fortune to put in as her share in the aggregate property of the compound house, it is the duty of any married son or daughter to accept her as a member of the house. Thus it is the function of the house, whether compound or not, to support the widow, in the first place with labour, then also — if necessary — with material values, in the same way as it is its function to support the old-aged.

For a relatively young widow, however, the situation may be quite different, as is shown from the only example of a young widow given in Tristan in 1938. Also this widow, a woman of 37, had a dwelling and other property which she had taken over from her late husband. But she had no grown-up sons or married daughters, and as she had family responsibilities — she had two girls of 12 and 7 years and a boy of 9 — she apparently could not attach herself to another family in a compound house. So she was laid under the necessity of receiving help from persons outside the house and was not able to yield anything in return, whereby, of course, she was reduced to a state of dependence. Now it might perhaps be expected that in this community, where the social bonds between (real and socially ascribed) brothers are so strong, it would be the duty of the "brothers", above all, to yield her the necessary help, especially in point of male work. The widow had many brothers and brothers-in-law, but as far as I was able to observe they seemed to have no special sense of duty towards her. The only man who was regularly seen helping her in the more strenuous work and otherwise, was her old father, a man of 74 who had himself a large family to provide for. It is impossible, however, to generalize from this single instance as there might have been special circumstances determining the status of the widow in this particular case.

Prestige and Rank.

In accordance with what we might expect in a community so small and simple, and in accordance with the basic ideology of the community, in Tristan da Cunha there is no distinction of established rank stages. Nor do there exist actual classes. The islanders are not even conscious of any rank distinction, and on superficial consideration it might seem as if there really were no rank distinctions at all in this community. All, especially all the men, are fundamentally equal and stand fundamentally on the same social level. There are no institutional or non-institutional privileges, either inherited or individually acquired, no inequality of socially ascribed rights and duties. There is no actual aristocracy, either on the basis of property or otherwise, no employment and no established division of labour except that between age and sex groups. Every man is his own master and is to all appearance not able to exercise any influence or superiority, still less authority, over anybody but his own house. As we shall consider more closely in another connection, there is not even an ackowledged common authority in the community. Every house father is in principle absolutely independent of anybody else. The executive authority of the community is invested in "the men", and this term includes all the grown-up men on the island, all who are old enough to do a man's work and feel sufficiently mature to take part in the conversation of the adults.

So it is natural and almost self-evident that in more or less popular travel accounts Tristan da Cunha has been enlisted among the "ideal" primitive communities where social inequality is absolutely unknown and a "patriarchal communism" obtains (see, for instance, Puaux, 1909, p. 524 sq.; Du Baty, p. 110 sq.).

Nevertheless, on closer examination there appears to be a rather distinct rank order in the Tristan community, wherein each member has his very definite place. These rank differences evince themselves in various ways. We have mentioned above that a married woman, especially of the older generation, would not talk to a foreigner in the presence of her husband, which obviously expresses an attitude of respect towards the husband, and a corresponding observation was frequently made where two or more islanders were together. Thus a Tristan islander would never speak to a foreigner in the presence of another islander whom he unconsciously feels to be of a higher rank than himself. Even when directly addressed he would mostly remain silent and, perhaps with an uneasy smile and a slight movement of the body, leave it to the other to give the answer. And this is obviously not, as might be thought, an expression of ordinary shyness in front of the foreigner. For when no other islanders were present the same man might show the same self-respect and confident dignity which we have found to be characteristic of most of the islanders in front of foreigners. On the whole, many islanders gave a definite impression of being more embarrassed in front of other islanders than in front of us as foreigners, a fact which can only be explained in the terms of differences in prestige and rank. And always when the Tristan islanders are together, in work or in play, there are certain individuals who constantly take the lead, commanding over the others and deciding at any moment what is to be done, though they are no appointed institutional leaders.[1] Above all do not "the men" form an absolutely homogeneous body. In the Sunday assembly outside the church, and in other more casual gatherings where things are discussed, it is always the same men who lead the conversation while others automatically keep silence when matters of general importance are discussed or when a decision is going to be made. Into the least details one may observe how some individuals are free and unrestrained even in a large assembly, while others — who may be cocksure and active enough in a smaller circle of their equals — get checked and retired and assume a passive attitude as soon as they come together with other islanders.

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[1] For instance, when landing a boat — as generally when the islanders work in gangs — they recognize no one man as leader. Apparently anyone with a loud "Now!" can make the whole gang join in bringing the boat a step further up on the beach. However, one day I got an evident proof of the operation of prestige and rank even here. A long boat had just been landed and was going to be dragged farther up on the beach. The crew and other helpers were standing ready at the bow-rope and at the gunwale, apparently taking a "spell". Among them was also a man of very low rank in the community. Now even this man tried to start another move by shouting a loud "Now!" — but the usual effect failed to come: with the exception of the shouter himself hardly one man made an attempt to move the boat. Soon after another "Now!" was heard, this time from another man, and now the whole gang joined in as one man! Why was the second signal more

There is no doubt that here we are faced with evident, though not very marked, instances of the operation of higher and lower social ranks based on differences in personal prestige. Then the question must be raised: What is the basis of social prestige in this community? What are the sources from which it is obtained? — This, of course, is a very complicated problem which verges on all sides of the social life, property conditions, right and morals, forms of leadership, labour conditions, etc. We have already touched upon the question in connection with the general group character of the community, and we shall return to it in other connections. Here we shall give a survey of some of the most important reference points by which prestige and rank are determined in Tristan da Cunha.

Firstly, there is a close connection between prestige and the group character, so that prestige and rank are largely conditioned by conformity with this norm of attitudes and behaviour. We have already seen how this connection operates in a positive way, and we have also pointed out which character traits are most highly appreciated and most highly involved with prestige in Tristan da Cunha. In this community, however, the operation of the group character on prestige appears most conspicuously in a negative direction. A very pronounced trait of the group character in Tristan, as we have seen, is a great considerateness and an equally strong repression of the instinctive need of self-assertion. Thus the group character sets a certain limit even to the amount of prestige that a man may with decency seek. A directly militant self-assertion is forbidden in this community, and any attempt at enforcing a submissive and affirmative attitude from another by means of power will inevitably

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effective than the first one? May be there was a slight nuance in the firmness and convincingness with which the two signals were given, which, anyhow, I was not able to perceive. However this may be, the reason why the first signal was not obeyed was clearly the fact that it came from a voice to which the others were unaccustomed and disinclined to submit, in other words, the inferior rank of the man who first shouted.

lead to loss of prestige. Likewise, if a man shows even an inclination to assume a haughty or commanding tone over persons of a lower rank, or takes up a somewhat patronizing attitude towards them, the others are almost sure to withdraw from his influence and even from his company, and to assume a less affirmative attitude towards him. On the whole, it is not good form to show a strong love of prestige or to exhibit a high rank in an ostentatious way. Haughtiness and boasting is always met with ridicule and contempt. Thus the very group character, though it is itself a most important basis of prestige, is with its strong claims to kindness and considerateness towards any individual operative in limiting the effects of the differences in rank as well as in restraining every individual in his endeavours to gain prestige.

Nevertheless, the existence of differences in rank is clear enough, and the most important positive source of prestige is not conformity with the group character, though this is also of great importance as a *conditio sine qua non.*

One thing which is highly valued in all human societies and everywhere associated with much prestige is an assured economic status. Thus a person who is in evident possession of such qualities or attributes which, directly or indirectly, involve economic prosperity, is likely to be the holder of much prestige and to attain a high rank in his society.

The subsistence of the Tristan community, as we have seen, is mainly based on the production of potatoes. Potatoes form the staple diet of the islanders and exceed by far any other economic resources in importance. Almost the only way, therefore, to secure a safe economic basis for oneself and one's house is to have the potato bins filled with potatoes, and as there is no division of labour except that between the sexes and age groups, no employment, no currency, and no regular trade, this much-desired economic security can only be attained through a man's own work. Thus a man's economic status is above all dependent on his working power and industry as well as on the quality of his work, and this applies not only to the procuration of food. In this community every man has to build his own house. It belongs to the exceptions that a man has been able to take over an old house when he started his own family. Even his outfit of clothes is — as far as it has not been received as gifts — indirectly dependent on his work, namely on the number and quality of the artefacts he has been able to produce for sale on board passing ships.

In close accordance with these economic conditions the most important basis of prestige in Tristan da Cunha is work, especially work on the soil. Above we have already called attention to the great importance of work as a reference point for a man's social status in Tristan da Cunha. Thus, as we have seen, it is above all decisive for a young man's transition from the status of adolescence to socially recognized maturity, whether he is able to undertake a man's work and personal responsibility, and when he enters the status of old age by resigning from regular work, he relinquishes at the same time a good deal of prestige, and all his influence in the community as one of "the men". Likewise, it is above all a man's ability to work and his sense of responsibility towards himself and his house that determines his relative status in the community. A laborious worker, one who in the first place keeps sufficient land under cultivation and cultivates it so that it gives a proper return so as to get his house safely through the winter, will always enjoy respect and great influence in the community, especially in the men's assemblies. Directly contemptible, on the other hand, and almost without any prestige at all, in other words: lowest on the ladder of rank, are those who still have their full working powers and yet live their days in laziness and ease, seldom doing a proper day's work and never taking sufficient precautions for the winter, thus almost regularly leaving themselves and their houses to starvation.

In other words: Prestige and rank in Tristan da Cunha are in the first place obtained from laboriousness and industry, which are taken as signs of a strong sense of responsibility, and it is above all on this basis that the Tristan islanders distinguish two different social strata in their community, which are accordingly denominated as those who work and those who don't work.

But, of course, it is not so much the very action of working as the result it gives that determines a man's social rank, likewise as it is obviously the result of his work and not the work itself which determines his economic status. Pursuit or busyness do not in themselves contribute to a man's social prestige or arouse the appreciation of others. Actually, with few exceptions, "those who work" were just as often observed at leisure as "those who don't work" without this having any apparent influence upon their position in the scale of rank. Decisive of a man's social rank is obviously not the amount of time he spends in working but alone the quality and effectiveness of his work. An ostentatious bustle is always taken as an attempt to "show off", as a conscious and, therefore, improper endeavour to gain prestige, and especially among "those who work" it will always arouse a suspicion that the quality of the work does not countervail the show of activity. That is also the reason why most islanders, especially those who reckon themselves amongst "those who work", seldom roll up their sleeves when working. This gesture is left to "those who don't work", among whom it is really more commonly practised.

So it is first of all what appears as the result of a man's own work and activity that forms the basis of his social prestige in Tristan da Cunha. With some exaggeration we may say that it is possible to measure a man's social rank on the amount of potatoes he procures as a winter supply for his family or house. But it is not only the result of the work on the soil that counts. In all that a Tristan islander may undertake the quality and effectiveness of his work is of great importance for his social prestige. Thus a well built, solid, and attractive house, well equipped and well kept, is a most important source of prestige. Likewise the quality and speed of a man's boat, which is above all dependent on exactitude during its construction, will greatly influence his position in the social scale. Even the smallest articles, such as a pair of moccasins, a model canvas boat, or a pair of polished horns, will contribute to the determination of the social rank of the maker. Correspondingly, the social rank of a woman — as far as she has any rank of her own (see below) — is determined by the way she keeps her house clean and tidy and by the quality of her sewing or knitting.

In the second rank comes property as a source of prestige in Tristan da Cunha, and even this is in accordance with the economic conditions. Compared with work, actual wealth, *i. e.* the possession of durable values or sources of supply, play a secondary rôle as a basis of economic security. Obviously, in this community with so simple and so scanty economic conditions, there is very little opportunity for an accumulation of values. Moreover, through a man's own manual work, on account of the poverty of the physical environment, he can hardly create to any considerable amount any other values than potatoes and other vegetables, which are not of such durability that they are fit for accumulation in quantities beyond seasonal requirements. It is true that a man may in the theory appropriate as much land as he likes, but as there is still enough land to be appropriated by anyone who needs it, the ground has no value to the owner except for what he can make it yield through his own and his housemates' work. So it is only when a man retires from work and wishes to attach himself to another family in a compound house, that his landed property has in itself any real value to him. Besides, as ownership of land is only recognized as long as the land is kept under cultivation, one man can in reality only appropriate as much land as he is able to cultivate by means of his own and his house's aggregate working power.[1]

Actually, cattle and sheep are almost the only form of property that may with some economic advantage be the object of a certain degree of accumulation. A large herd of cattle or sheep obviously contributes very substantially to the economic security of a house, and signifies, moreover, active capital without putting into requisition the labour of the house. Besides, the cattle are of great economic importance on account of their draught possibilities. Thus the possession of a pair of draught bullocks means a considerable contribution to the aggregate working power of the house. However, even here the poverty of the physical environment sets a very narrow limit to the accumulation of wealth. The accessible pastures can only feed a very limited number of animals, and as the pasture-land is all common, it would be disapproved as an improper economic self-assertion if one man tried to keep more cattle and sheep than reasonable according to circumstances, as this could only be done at the sacrifice of the others' equal rights.

These conditions, then, must be taken as the obvious reason why property also plays a secondary social rôle as a basis of prestige, and, to make accordance with the economic conditions absolute, the only kind of property which does have any bearing on the social prestige of the owner is the property formed by cattle and sheep. It is particularly characteristic that landed property does not count at all in the determination of rank. No matter how many patches a man may fence in and how many "baskets" of land he may keep under cultivation, it is only by the quality of his work on his land that his rank is determined. Of particular significance for the social prestige is the property of cattle. A considerable prestige is especially attached to the ownership of a good and strong pair of draught bullocks, but also a good flock of sheep will count to the benefit of the owner's social rank. Thus, if a man does not work so very much on his potato patches, he may still be reckoned amongst "those who work" if he has a comparatively large flock of sheep, and especially if he has a fair-sized herd of cattle which may serve as the economic basis for his house. But, as a rule, laziness will inevitably also lead to poverty because a lazy fellow is very likely to depend too much upon his eventual property for food, and to overwork his stock. And when his property is gone, his social prestige will be gone with it.

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[1] On the property conditions see below (p. 257 sq.).

Next to potatoes fish is the most important article of nutrition in Tristan da Cunha. Fishing, therefore, is naturally a very important occupation from an economic point of view. With reference to what we have just pointed out we thus should expect to find that this occupation would be involved with a high prestige. This, however, is not the case. Fishing is not regarded with any actual disrespect. It is respected for what it is, namely an endeavour to secure the economic subsistence of a man and his house, wherein, as a matter of course, even "those who work" are frequently occupied. But it is not connected with any special prestige either, comparable, for instance, to the prestige attached to the work on the soil. However, even this fact may be explained in the terms of economics, for fish does not actually play the economic rôle that might be expected. For "those who work" at least it is decidedly of secondary importance compared with potatoes. Actually, beyond a rather limited amount, fish seems only to be used as a substitute when potatoes run short. Thus it is only for "those who don't work" that fish is an all important economic source. This at first sight amazing fact is, most probably, to be explained by the uncertainty connected with fishing as a source of economic subsistence. The absence of harbours and of sheltered waters makes fishing very much dependent on favourable weather conditions, and with their very primitive fishing methods the islanders are to a comparatively high degree thrown upon the caprices of piscatory luck. Neither do the islanders know any methods for the preservation of fish so that it could be stored up to form a more reliable basis of economy like potatoes. Obviously, the more foreseeing islanders are right when they say that nobody can rely upon fish for his economic subsistence. That is just what "those who don't work" do to a very high degree — with a periodical shortage of food as the almost inevitable result for themselves and their houses. This, in my opinion, is the main reason why fishing is not connected with any special prestige: Fish is appreciated as food when it is accessible, and it is a necessary part of the diet; but it is useless as a basis of economic security. Besides, of course, fishing is a most easy and not very exacting task which may be performed by any child, and which is actually performed by both women and children just for an amusement. It is significant that it is not reckoned as actual "work".

It will be seen that what we have said above about the close connection between economic conditions and the basis of prestige is strongly confirmed by conditions in Tristan da Cunha. Prestige is above all associated with those qualities or attributes that are most important for an assured economic status, and a high rank is in the first place given to the person who has a great economic capacity.

This, however, does not mean that — apart from the group character — prestige is exclusively determined by economic factors. There are also other factors at work, personal character traits, temperamental traits, innate and acquired dispositions, etc., matters that could not be studied in detail for lack of time and which, besides, could only be studied with any profit by a trained psychologist. Here I may mention just one matter which is quite interesting: In Tristan da Cunha a person's social prestige and rank is to some extent also influenced by the colour of his skin.

As previously mentioned, the Tristan islanders have a rather strong feeling of being looked down upon by European visitors because they are "black". This feeling is easily explained by the European prejudice against "coloured" people, and the somewhat haughty attitude of distance that European visitors mostly assume even towards the "natives" of Tristan. The remarkable thing is that this prejudice has to some extent been accepted by the Tristan islanders themselves, so that even to them a dark skin has become an outward token of inferiority, while, on the other hand, a light skin and, on the whole, fair complexions have been connected with a certain prestige. This fact must evidently be put in some connection with the islanders' general admiration for European culture and their strong sense of their own cultural inferiority as compared with the white man. But we must also assume a more direct indoctrination of European ideas, for which, as a matter of fact, the English missionaries must in the first place be made responsible.

With the great and very conspicuous differences in the colour of the skin prevailing among the Tristan islanders, this prejudice against a dark skin has even come to play a certain rôle in their own social life. Thus fair people are thought much of in Tristan da Cunha, while, on the other hand, dark-skinned people may, in extreme cases, even be the object of some slight contempt on account of their colour. That is probably also why especially the young women are ashamed of curly or woolly hair and try to conceal their curls by rubbing their hair with soap. Particularly significant is this racial prejudice for the consideration (prestige) of the children. People who have fair children are very proud of them, and mostly make no attempts to conceal their pride. Also when it comes to marriage, it seems as if comparatively fair girls have a better chance to find a laborious husband than the dark ones have. In any case, it is a striking fact that the greater part of pronouncedly dark-skinned women are married to men of inferior quality and rank. Certainly, the prejudice against a dark skin is not so strong that it may not be over-ruled by zeal and industry. Thus a dark skin is no insurmountable obstacle to gaining a high rank in the community. However, again it is striking that none of the pronounced dark-skinned men, at least of the younger generations, are found in the upper stratum of "those who work": all of them have also economically a more or less inferior position in the community. Whether this is due to a real inferiority of dark-skinned individuals with regard to their innate mental equipment, or whether it must be explained by the social prejudice against the colour of their skin having acted as a drag upon their mental development, must remain an open question.

Generally speaking the rank differences in Tristan da Cunha are not very marked as compared with many other societies, both primitive and civilized ones. As mentioned above the Tristan islanders are not even conscious of making any rank distinctions at all. The principle of equality of individual rights is rigidly adhered to. Nobody has any right to claim a subordinate attitude or behaviour from anyone else on account of difference in rank. And, as we have seen, the very group character acts as a brake on an eventual development towards a too strong rank differentiation, limiting and restraining the individual's search for prestige and dominance in the community. It is certainly true that in this community the search for prestige is a very important incitation to laboriousness: most men seek through industry not only economic security for themselves and their houses but, perhaps even more frequently, for the appreciation of their fellows. But no man in Tristan da Cunha seeks a dominant position over his fellows by utilizing their less favourable economic standing. Even an ostentatious demonstration of prosperity is strongly against the codes of the community. A liberal and ostentatious generosity would be regarded as boasting.[1] Though, quite naturally, there rests a certain obligation on the more prosperous ones to help those who are in direct need, this help has to be rendered in a discreet and least possible wounding manner. Usually the recipient is allowed to render a service in return, for instance to bring the donor — according to the value of the assistance given — a bundle, a donkey-load, or a cart-load of wood from the hill. In this way the whole thing is given the character of a bargain, and it is only the most pronounced lazy dogs who occasionally fail to use this chance of a partial rehabilitation. Besides, though every individual has his definite position on the social scale according to his qualifications, this position is by no means strictly fixed, but may at any moment be partly determined by the actual situation. Thus a man of comparatively low rank may well assume a predominant position in a given situation, if he has special qualifications for this particular situation.

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[1] Significant is a passage in Mrs. Rogers' diary quoted in her book The Lonely Island, p. 191: "We have one family here which had practically nothing to eat for days, and I wanted to give them some of our food as there are young children, but was told rather gruffly 'they could feed their own family'. The people here are very proud and sensitive on some points, so I said no more."

Nevertheless, to some measure we may discern in Tristan da Cunha an incipient class formation on the basis of these rank distinctions. There is, namely, a certain sense of equality and solidarity between individuals of approximately the same position on the rank ladder, a certain group consciousness on the basis of equality of rank, with a corresponding collective feeling of social distance from, and disparity with, people of a markedly higher or lower prestige. Especially do the more industrious and prosperous people, forming the superior social layer, have an obvious feeling of special solidarity in respect of the lazier and poorer people, from whom they, to some degree, dissociate themselves mentally if not physically. This special solidarity of superiors is already expressed in the terms "those who work" and "those who don't work", whereby, above all, even "those who work" designate themselves as a collective unit distinct from "those who don't work". And in many other ways they give expression to their special solidarity so that we sometimes get the impression of a certain cliquism. It is certainly true that in the composition of their minor associations (working gangs etc.) the islanders are always and in the first place guided by the existing social bonds determined by relationship by blood or by marriage. But it is evident that certain bonds are particularly emphasized through similarity in rank, whereas others are weakened through a marked difference in rank. In extreme cases of rank difference even a rather close blood relationship may be practically neglected, or even denied, by the person who has the higher rank. It is uncertain whether a similar group consciousness may be found among "those who don't work". Certainly, even they associate preferably with people of an approximately equal rank, but this seems to be more of necessity than of inclination as on account of the exclusivity of the higher ranks they are to some degree debarred from associations with the higher circles. As contrasted with "those who work", a special solidarity of "those who don't work" was never orally expressed.

Thus in Tristan da Cunha we may talk about a rudimentary class distinction into the two classes "those who work" and "those who don't work", one of which is superior to the other. Also MacIver's statement concerning the nature of class sentiment finds its confirmation here, namely that, "above all, it unites the 'superior' against the 'inferior'," and "emanates from the belief in superiority, so that class division is really imposed on the lower by the higher classes" (1937, p. 173). But the border between the two social strata is not sharp and by no means insurmountable. The rank ladder rises evenly from the lowest to the highest, and there are several individuals of a middle rank who cannot definitely be placed in either of the two classes.

It will have emerged from the foregoing that prestige and rank in Tristan da Cunha are strictly personal. A man's birth, kinship connections, or any other social relationships, have in principle no bearing whatsoever on the determination of his social rank. This is entirely and exclusively determined by his own personal qualities. Thus there are many instances in Tristan da Cunha of great differences of rank existing even between brothers, or between father and son. Nevertheless, we frequently find that a house father's prestige, and thereby his rank, is to some degree transmitted to the other members of his house, who, by the nature of the case, even share his economic status. This seems to apply especially to the women, who thus have no well defined rank of their own, but share their husbands' or (in the case of unmarried girls) their fathers' social status — in good accordance with the strongly patriarchal family organization of this community.

5. Leadership and Authority.[1]

It has already been stated above that in Tristan da Cunha the house is a well organized functional group, with a firmly established pattern of superiority and subordination. The house father is markedly the head of the house, and is endowed with an individual authority which is of a pronounced institutional character, and by virtue of which it is his commonly acknowledged and recognized right to dispose of and command over the aggregate property and working power of the house, and to act as the sole responsible leader in all economic and cultural enterprises of the house. And, apart from the actual leadership, he also, as a matter of course, represents his house in respect of its social environment.

This, however, is almost the only instance of an institutional individual leadership and, on the whole, of a pronounced institutional authority in Tristan da Cunha. Apart from the house and a few other exceptions (see below), leadership in Tristan has always the more primitive character of a personal leadership. The leaders are practically never appointed beforehand and are mostly not even expressly recognized. In most cases they have not even themselves any conscious idea about their leading position. They act as leaders exclusively by virtue of their personal qualities, and are the object of no other acknowledgment than the one which is implicit in the fact that their signals are actually followed.

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[1] For an explanation of the various terms used in this section, see Munch 1945.

It is also characteristic of the forms of leadership in Tristan da Cunha that the individual leadership is very little prominent and is markedly subordinate to collective leadership. In other words, the concentration of leadership is generally very weak in Tristan da Cunha.

This very backward rôle of individual leadership, again, has an obvious connection with the group character of the Tristan community, with its high appreciation of individual freedom and independence and its strong repression of the individual want of self-assertion. As we have pointed out in connection with the basis of social prestige in Tristan, it is inadmissable for a man to show even an inclination to assume a haughty and commanding tone towards other persons. If he does so, the result is an almost inevitable loss of prestige, and of authority at the same time. On the whole, a man who is obviously inclined to put himself at the helm at any moment, and tries to take the lead in any situation where an individual leadership is neither felt necessary nor wanted, such a man is almost sure to be the object of ridicule and contempt, and his orders and advice are very likely to be ignored by the greater part of the population. The inclination of most islanders is to withdraw from such an attack upon their personal freedom and independence.

However, this repression of individual leadership in the social life of the Tristan islanders, as well as the very primitive character of leadership on the whole, may also be explained directly in the terms of the economic and social conditions of the island.

It is characteristic that the only exception to this rule is found in the house or the family. Certainly, the dominant position of the house father and his investment with an institutional individual authority are not a peculiar characteristic of the Tristan family, or "house". In all conjugal families we are met with similar conditions. And, of course, this dominant position of the house father is quite natural in so far as it "almost certainly derives from the biologically established dominance of the male", which under the conditions of a conjugal family organization "is given full play" (Linton, 1936, p. 170). However, the very firm organization of the house in Tristan, with its very strong concentration of authority, has obviously also some connection with the predominant importance of the house as a functional unit, as pointed out above, and which involves an intensive and permanent collective activity of the group.[1]

Compared with the house, as we have seen, other groups and associations play an inconsiderable part in the economic and social life of the Tristan islanders. They only seldom come into action as functional units, and their activity is mostly of an inner and very little intensive character which does not demand a strong concentration and a firm and stable organization of leadership and authority. Thus even the activity of "the island" is almost solely then of an external and comparatively intensive kind when the community comes into contact with the outer world, which, as we have seen, only seldom occurs.

Leadership in Minor Associations.

Apart from the house and the family, therefore, leadership and authority in Tristan da Cunha are of a very inconspicuous nature. The active co-operative groups, the working gangs, are the kind of groups where a leadership should be most easily observable, as their activity is always of an external kind, being directed towards an object outside the group, and is most likely to be of a comparatively intensive character. But even here it is often hard to discover the function of any form of leadership. The absence of an institutional leadership in these gangs, and even of any kind of recognized leadership is obvious. The members of the gang practically never point out a leader or any leaders beforehand, and if such a gang were asked if there were any leaders, any member of it would promptly say no. Apparently, any member of the gang may at any moment take the lead, directing the actions of the others where such direction is necessary for the co-ordination of movements or the distribution of tasks. As a matter of fact, we seem to be concerned with what might be called an ambulatory leadership, the leading rôle being taken, now by one, now by another member of the gang.

However, on a closer examination we shall find that leadership in these minor groups is always invested in certain members of the gang who form its particularly active kernel. We shall observe that not every member of the gang may play the rôle of leader in a given situation. This rôle is always confined to a smaller number of members who take the lead in turn. And, though in this way all the members of the gang (in turn) may play the rôle of followers, there are always certain members who only play this rôle, never making an attempt to take the lead in any situation, nor being able to do so. Here we may call to mind the example given above of a gang of islanders beaching a boat, where one member of the gang made a vain attempt to act as a leader, and found himself absolutely without a following (see p. 226, note 1).

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[1] In this connection we may call to mind the obvious relaxation of paternal authority in the European family that has taken place in connection with the decreasing importance of the family as a functional unit during the first third of our century.

Thus there is a somewhat clear, though not very conspicuous and only loosely organized leadership in the working gangs of the Tristan islanders. Moreover, this leadership is clearly a collective leadership of an unrecognized personal character. The authority of the gang leaders is exclusively based on their personal prestige, coupled with a certain degree of mental "leadership traits", such as vitality, enthusiasm, and a convincingly assured behaviour.

As a consequence of these conditions it is impossible to make a sharp distinction between "leaders" and "followers" in these gangs. There are degrees of leadership according to the prestige of each member, which evince themselves, above all, in the frequency of the situations in which a man may take the lead, as well as in the efficiency of his leadership. Some members may take the lead more frequently, and are followed more willingly and at a quicker rate than others. Thus there is no sharply circumscribed council of leaders standing before a majority of followers, but authority is apportioned unevenly over a continuous scale following the ladder of general prestige.

In certain cases, however, leadership may be of a more pronounced character, and sometimes even an individual leader may evidently stand out from the rest of the gang. Such more pronounced leadership conditions may arise on the basis of unusually great rank differences within the gang, or a man may assume the position of pronounced leader by virtue of an acknowledged superior skill in the special kind of work to be performed through the collective activity of the gang. Both factors were probably operative in forming a distinct individual leadership in a working gang that was observed by the writer in 1938. The gang was building a new boat and consisted of seven members. Five of these were probably operative in forming a distinct individual leadership stratum of "those who don't work", and one member was of a more undefinable middle rank. But the seventh member was of a comparatively high rank and was decidedly to be reckoned among "those who work". Moreover, this man was reputed as a very clever boat-builder.

So it was quite natural that this man was commonly acknowledged as the leader of the gang. And his leadership was of a pronounced individual character. He was evidently the responsible leader of the work, directing the activities of the others and superintending the quality of their work, and all the other members of the gang were clearly subordinate to him. But even his leadership was probably an unrecognized leadership: the subordination of the others was only of a factual kind and was not given any theoretical expression.

A recognized individual leadership, however, may regularly be observed in one special situation, namely in a boat as long as it is under sail. Here a pronounced individual leadership is held by the helmsman. He not only decides about the course of the boat and the spread and position of the sail, but he also distributes tasks to the crew and decides where each man shall have his seat, which is important for the poising and sailing capacity of the boat. And the other members of the crew consciously submit to his directions, and, though they may have proposals to make, they always await the decision of the helmsman before they act or move. The authority of the helmsman, thus, has even assumed a somewhat institutional character, being acknowledged and recognized as an established order instituted through custom. And, though it is in principle a matter of indifference which member of the crew actually holds this status at the moment, each of the long boats has even its appointed helmsman, whose commonly acknowledged right it is to take the tiller whenever he is in the boat. This appointed helmsman is usually the man who is regarded as the ablest sailer. It is characteristic, however, that the authority of the helmsman is strictly bound to the situation: a boat under sail. When the sail is lowered and the boat is rowed, the man with the tiller can exercise no other authority over his comrades than his own existing personal authority. In this case, too, there is no appointed helmsman, the tiller being handed over from man to man according as the manning of the oars is changed.

An individual leadership of a somewhat institutional character also occurs, as a matter of course, when one man is about to carry out some work of unusual importance, such as building a house, fencing a new patch etc., and calls a gang of assistants to his aid. In this case, quite naturally, the "employer" leads the work of the gang, and the others consciously and expressly submit to his directions.

The forms and functions of leadership in other minor groups, such as the clan or the joint-family, could not be elucidated as these groups were never observed in collective activity of any kind. However, the joint-family is naturally concentrated around the grandparents who thus, more or less, lead the fashion of the group. We can hardly expect to find any leadership at all in the clan, as this group never exhibits any activity of its own, either of an external or of an inner kind.

The Island.

The leadership conditions of the community as a whole are very similar to those of the minor associations, apart from the house and the family. We have already repeatedly pointed out that in Tristan da Cunha there is no commonly recognized leadership of the whole community. Still less is there a commonly recognized head-man or any other kind of "political" authority or governmental system. In accordance with their strong love of freedom and personal independence, the Tristan islanders have always refused to recognize any governmental control or institutional authority in their community. William Glass, as we have seen, was endowed with an institutional authority which lasted for his life-time, but already before his death the economic and social dissolution of the community into self-dependent families, which forms the basis of the islanders' individual freedom and individualistic life attitude, was probably far advanced. And after the death of William Glass no other "Governor" was appointed until 1932, when the Reverend Partridge introduced his governmental system with a "Council" of islanders, and a "Chief" who should also function as the *locum tenens* of the missionary in administrative questions when the latter was absent. This, however, was factually nothing but a kind of "marionette government" under the missionary, and as soon as the missionary had left, the whole system was abandoned, the "Chief" only retaining the function of a representative of the islanders in the presence of foreign visitors.

As we have seen the Tristan community is a pronounced male community, and authority is invested, quite generally, in "the men", a term which includes all the grown-up men on the island. All decisions and arrangements which call for the collective activity of "the island", or are otherwise concerned with the whole community, are made by "the men", a fact which frequently finds a lingual expression in the phrase "the men say —".[1] Actually, "the men" has almost become a designation for the executive authority on the island. Very often, however, it is replaced by a still more indefinite "they" ("they say etc."). It was a most natural thing for the missionaries, therefore, when they wanted to address the islanders or to discuss an important matter with them, to call a "meeting of all the men", and in the various reports and accounts of the missionaries we sometimes hear of these meetings. However, they seem only to have been called at the request and initiative of the missionary. The islanders themselves have not evolved the custom of formal meeting of all the men.[1] Certainly, as we have already suggested, the Sunday assembly outside the church constitutes a rudimentary form of a council. This assembly is exclusively confined to the adult men, and here they converse about matters of common interest; occasionally even a decision may possibly be agreed upon which concerns them all. But the assembly is absolutely informal. There is no visible leading of the assembly, and outwardly the "discussion" does not differ from an ordinary conversation such as the men may carry on whenever and wherever they come together in any number. Above all, the men in this assembly are entirely unconscious of exercising any decisive or executive authority. To their own consciousness, as we have seen, they just gather to have a chat and to while away the time between Service and dinner, and, as far as I was able to gather, a decision about a joint action could just as soon be made in an imperceptible manner outside and independent of the Sunday assembly.

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[1] E. g. "the men say they's going over there (i. e. to Nightingale) for fat next week", "the men say they's going to —" (do this or that).

However, even among "the men" quite generally, as in the working gangs, there is an uneven distribution of authority according to the general prestige of each member. It has already been pointed out in connection with the evidence of prestige, that "the men" do not form an absolutely homogeneous body. In the Sunday assembly and other male gatherings there are certain men who have more influence than others, who lead the conversation and actually make resolutions on behalf of the whole group, while others just play the rôle of followers. Thus authority is actually concentrated in a clique of "those who work". These are the men who lead the group in all its collective activities. They take the initiative in all external actions of "the island", and organize the co-operation of the group. They stir and loosen collective

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[1] It is probably a double error when Mrs. Rogers talks about the "Meeting of all the Heads of Families" as the "islanders' own custom" which her husband could just take up and utilize when he tried to establish a local government on the island (1928, p. 72). Firstly, it has probably never been an established custom of the Tristan islanders to call together formal meetings of any kind for the discussion of joint concerns. This conception is possibly based on a misunderstanding of what is contained in the term "the men". Secondly, the convocations occasionally called by the missionaries have not had the patriarchal character Mrs. Rogers seems to presuppose: they have not been confined to the heads of families but have obviously included all the men, married and unmarried (cp. Rogers, 1928, p. 139).

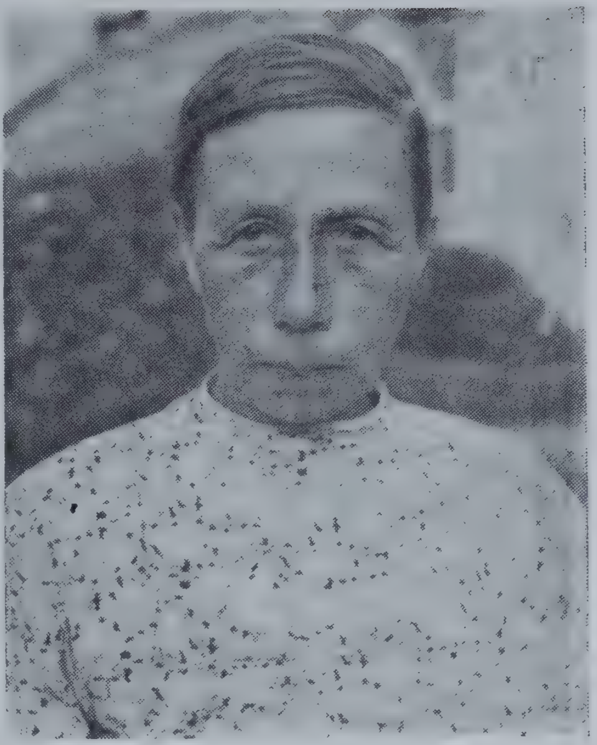

Fig. 101. Frances Repetto.

affections, and lead the fashion of the group in all its daily life. Above all, these are the people who by virtue of their prestige are estimated as examples worthy of imitation; in other words, they are the people who give the patterns of attitudes and behaviour which constitute the group character of the community. They are also the people who react most spontaneously and most consequently against any breach of the group character, thus acting as the guardians of the social order within the group. Yet their leadership is a pronounced personal leadership, and it is evidently of an unrecognized and unconscious character.

As in the minor associations, therefore, there is no sharply circumscribed and exclusive "council of influential men" acting as a government for "the island" and standing over against a majority of followers. The leaders do not form a body with easily recognizable limits. There are degrees of authority according to the general prestige of each member of the men's assembly.

It is a matter of course, then, that authority may be more or less concentrated according to the leading capacity and initiative of the most influential men. The concentration of authority, therefore, varies with the mental capacity and strength of character of the leading persons. Under certain favourable conditions a particularly forceful character may even gain such an authority in the community that his leadership actually becomes almost an individual leadership. Such individual leaders were in turn Peter Green, Andrea Repetto, and Bob Glass, though their leadership was probably only partly acknowledged. More recently the most outstanding person in this little community has been a woman. Her name is Frances Repetto.

Frances Repetto was born in 1876 as the youngest daughter of William Green, the eldest and apparently most prominent of Peter Green's sons. Her mother was Martha Cotton, a daughter of Alexander Cotton, and seems also to have been a prominent and respected person in the little community. However, in 1885, when Frances was only 9 years old, the life-boat disaster at one blow swept away nearly all her male relatives. Actually, on this occasion she lost her father, 3 brothers, and 7 uncles, and the only male relative she had left, besides her old grandfather Peter Green, was her 13 years elder brother Henry Green. In 1894, before she had completed 18 years, she was married to Andrea Repetto, the Italian who was wrecked on the island two years earlier and became the factual leader of the community after Peter Green. Her husband died already in 1911, and again she was left alone, now with a large family of seven chidren, the eldest being a girl of 15 years and the youngest a boy of 2. However, her economic status was quite good, her husband leaving her at his death a large flock of about 70 sheep and about 20 head of cattle, besides a good area of cultivated land. She also had a very decent dwelling which her husband had taken over from Peter Green.

Frances Repetto is known by all who have met her as an exceptional character and an outstanding personality. She is very intelligent and expresses herself well, and she is evidently one of the best educated persons on the island. Although she has never been away from Tristan — she has not even put her foot on Inaccessible or Nightingale Islands — her conversation disclosed a great knowledge of human nature and an amazingly wide outlook. Her sense of justice is very strong, and she maintained very definite and well supported opinions of what she considered right and proper. She also expressed her opinions very frankly. She is reported to have been a very strict and consistent educator of her children. Mrs. Rogers reports that she had "seen her take a stick to her two big sons —— if they ventured to disobey her orders" (1928, p. 96). I did not witness anything like that, but it was evident that her children, as well as her children-in-law, treated her with great, almost humble, respect. And towards me she expressed the view that a corporal punishment was a necessary part of a good education of children, and, naturally, she found that most people of the younger generations were too compliant in this respect. Towards her own grandchildren she showed that kindly definiteness which leaves no room open for a compromise. Evidence of her strong personality is given by the fact that her joint-family is about the most effective joint-family on the island, *i. e.* the one with the strongest sense of mutual solidarity between the members. At the same time she is a warm-hearted woman, kind and cheerful, and she is like a good old granny to all good children on the island.

Now it is evident that in a so pronounced male community as the one in Tristan da Cunha, the direct influence of a woman can only be of a very limited kind. Naturally, even Frances Repetto does not take part in the Sunday assembly outside the church, or in other men's gatherings where matters of common interest are discussed and decisions made, and it would be regarded as highly improper if she were to venture to interfere directly in the men's affairs. On the whole, although she does not generally assume the same retired and passive attitude towards the men as the other women do, it is only seldom that she has an opportunity to act as a direct leader in front of the men.

Nevertheless, through her son William as a medium she actually exercises such an influence in the life of the community that it is quite intelligible that she has been described as a kind of uncrowned queen of the island (cp. Christensen, 1935, p. 237 sq., 248). On more than one occasion we were able to observe her influence and initiative behind the collective activities of "the island". Thereby her son William acted as a kind of informal delegate for her in front of the men, communicating her views to them and bringing her proposals into effect, and it was evident that her views and opinions had a particular pondus in the assemblies. But above all Frances Repetto is the natural and implicative representative of the whole community before foreign visitors on shore, and no missionary or magistrate, however imperious and absolutistic his attitude towards the islanders may be, will ever get round the authority of Frances Repetto. Especially after the Rev. Partridge had removed Bob Glass from his self-established position as "Head-man", there was no other person on the island who could dispute precedence with her.

So it would have been quite a natural thing, when Partridge established his governmental system in Tristan da Cunha, to put Frances Repetto also *de nomine* at the head of the community as its appointed leader — if this had at all been possible in a so pronouncedly male society as this. Under the reigning conditions Frances Repetto, being a woman, had to be content with the more unpretentious title of "Chief of the Women". However, in reality she retained all her influence and factual authority through the appointment of her son William as "Chief Man".

William Repetto, as it happens, is a rather mild-tempered man, exceedingly modest and unpretentious in all his appearance, and he showed no marked inclination to lead. Though he may not be described as a weak-natured man, at least not as compared with other Tristan people, he is mentally bound very strongly to his mother. He was 36 years old, but he was still unmarried, and seemed very likely to remain so. On the whole, he showed no inclination to emancipate himself from the authority of his mother. He still lives with her in one room of her dwelling, these two forming a house and a family of their own.

As we have seen, the "constitution" established by Partridge was soon abandoned. As soon as the missionary had left, the islanders fell back on their old routine with all authority invested in "the men". What influence Frances Repetto may exercise to-day is solely due to her own personal prestige. Her authority is exclusively of a personal kind, and though she is undoubtedly the most influential person in Tristan at present, the are still other voices in the men's assemblies which claim to be heard. Of the dignity of her son practically nothing is left except the title: "Chief" has become his nickname. Otherwise, in the daily life of the islanders he has no authority by virtue of his office or title. As one of the older inhabitants informed me: he is no more chief than anybody else. He has not even personal authority in preference to other members of the upper class of "those who work". But, obviously, he borrows some of his mother's authority when acting as her delegate in front of the men. In fact his psychic dependence upon his mother is obvious even to his fellows. Although he never announces his views and proposals as actually originating from his mother, the islanders know that when he speaks or acts as their leader, it is actually Frances, his mother, who speaks or acts through him.

In one respect, however, William Repetto has retained an institutional leadership even after the departure of the Rev. Partridge: From the day when he was appointed Chief Man he has acted as the spokesman of the community in front of foreign visitors on board passing ships. (As soon as the visitors come on shore, the representation is taken over by Frances.) As we have seen, it is above all in their intercourse with foreigners that the islanders appear as one co-operative unit, and the cry "sail-oh!" always provokes a rather intensive activity of "the island" as a group. It was quite natural, then, that even in this situation (the visit of a ship) the claims to a firm leadership by an individual were particularly strong. Besides, the nature of the activity in question decidedly demands an individual representation through which a communication — and eventually a commercial agreement — with the authorities of the ship may be effected in a quick and decisive way.

The need of an individual leadership in this particular situation seems to have been unconsciously felt by the Tristan islanders. In any case, when boarding a ship the islanders seem mostly to have submitted to an individual leader to whom they have left communication with the ship's authorities on behalf of the whole community. Originally, however, even here there was only a personal leadership. No representative was appointed beforehand, and the leadership was apparently taken by any person of a certain prestige who happened to be the first to come into contact with the proper authorities of the ship. Certainly, there have been persons, like Peter Green and Bob Glass, who have claimed leadership in this situation as an institutional right based on custom. However, these claims, like their claims for leadership on the whole, were not acknowledged by the islanders. Thus, actually, even in this respect leadership was in some way of an ambulatory nature, the representation of the island being taken charge of, now by one, now by the other prominent member of the community. However, the one who had once acquired the position of representative of the islanders on board a ship, usually retained this position as long as the islanders remained on board that ship.

Even in Peter Green's time it was by no means a settled questior who should represent the island on board a visiting ship. Yet Peter Green, according to a common conception, had a very firm leading position in the community so that he was regarded by most visitors as a kind of appointed governor of the island. Certainly, in most cases the representation of the community towards the outer world was performed by him because he was the most prominent person on the island at that time. However, occasionally we hear of other persons having taken the lead, acting as the spokesmen of the community on board visiting ships. Thus, when in 1884 the island was visited by the barque *Ellora* with Douglas M. Gane on board, the late founder and Honorary Secretary of the Tristan da Cunha Welfare Fund, Joseph Beetham acted as the leader and representative of the islanders (Gane, 1886, p. 23). Characteristic is the small divergence that has arisen between two different and to all appearance mutually independent accounts of the visit of the Norwegian exploring expedition on the *Antarctic* in 1893, whereby the leader of the expedition obviously regarded "kaptein Higgins" (apparently identical with Captain Hagan) as the leader and representative of the community (Bull, 1898, p. 38 sq.), whereas the captain of the ship entitles and descibes "Mr. Green" as the chief of the island (Kristensen, 1895, p. 27, 30). In this connection we may also mention the remarkable fact that when Captain Brooke, of H. M. S. *Opal,* visited the island in December 1884, he "found from the people that there was no regularly deputed governor of the island" to whom he could formally transfer various gifts sent out by the board of Trade and the Lords Commissioners of the Admiralty (Correspondence, p. 31).

Likewise, in more recent years the representation of the island has been somewhat changeable. It is true that after the death of Peter

Green the representation was mostly done by Andrea Repetto and, after him, by Bob Glass. But their positions as representatives were not undisputed, and especially Bob Glass had many rivals who would take the lead whenever they saw a chance to do so. Thus, when the Rev. Rogers arrived in 1922 he was received and entertained by Tom Rogers, who thus acted on behalf of the whole community, while Bob Glass missed his chance by taking Mrs. Rogers for an ordinary passenger, trying to barter some island curious with her (Rogers, 1928, p. 37 sq., 39). On other occasions Henry Green, the brother of Frances Repetto, seems to have acted as spokesman of the community.

Occasionally these loose conditions of organization could cause a great deal of confusion, as is shown by the amusing and very characteristic story of the visit of the *Quest* in 1922 as told by Dr. A. H. Macklin:

> "As soon as the first boat came alongside a strong active man with a cheery face leapt on to our gunwale and clambered aboard. He told us his name was John Glass, and seized those of us whom he could reach in turn by the hand, exclaiming in a piping voice that contrasted strangely with this powerful frame: "I'm glad to see you all. How are you? Have you had a good trip?" Another man, taller and more slimly built, quickly followed him and made his way to the bridge."

After having told how several other men came aboard and immediately "started to ask for things" he continues:

> ". . They made themselves such a general nuisance in this way and, together with those in the boats, who kept calling continually to those aboard, raised such a pandemonium that Commander Wild approached John Glass and asked him if there was a 'head-man' of the island or recognized representative of the community.
>
> John Glass promptly replied, 'I am' but continued in the same breath, 'There ain't no head-man now. Bob Glass, my brother — that's him on the bridge — he's head-man. Anyways, he's the best one for you to talk to. He's got the larnin'!' Having 'got the larnin'' meant that he could read and write" (Wild, 1923, p. 220 sq.).

These conditions were changed and converted into more stable forms when Partridge introduced his governmental system, with a "Chief Man" whose most important task became the representation of the island on board visiting ships. And obviously the islanders must have felt the advantage of this arrangement since this function of the Chief has been retained as an established institution even after the political system of Partridge had otherwise been abandoned. It is characteristic, however, that the activity of a missionary was necessary in order to introduce such an obvious improvement in the social organization.

The Authority of the Missionary.

It is self-evident that among the Tristan islanders, with their strong and simple piety, the priest holds a high status in the community. He is filled with "holiness" by virtue of his office, and this holiness lends a certain authority to him, not only in spiritual matters. Besides, as a European he enjoys a high prestige in this community, and on account of his superior knowledge and experience in a great many matters he is looked up to by the islanders.

It is therefore natural that the resident missionary occasionally has acted as a leader also in temporal matters. Thus Mrs. Rogers reports that "we added to our own business the departments of postmaster, schoolmaster, Scoutmaster,[1] medical adviser, dispenser, first-aider, architect, explorer, journalist, meteorological observer, organizer of entertainments, magistrate, and universal umpire, with more or less success" (1928, p. 73). Above all is the resident missionary the natural representative of the islanders in the presence of foreign visitors, and the responsible authority of the island during the official visits of warships.

To what extent this natural authority of the priest has been utilized by the various missionaries to establish a dominant position of their own of a more permanent and institutional character does not always emerge from their reports. Rogers (resident missionary 1922—25) seems to have made an attempt to establish some sort of government with a "Parliament" wherein he himself acted as chairman (Rogers, 1928, p. 72, 140). And, certainly, Partridge (1929—33) seems to have utilized his authority to the utmost even before he was appointed Magistrate of the island and acquired an absolute authority based on Governmental power.[2]

However this may be, in 1934 a new missionary was sent out to Tristan, and he has managed to establish for himself an authority which goes far beyond the natural authority of a priest. As a matter of fact, by various means he has established over the islanders an absolute authority which is certainly unique in the history of Tristan da Cunha, though not so in that of mankind.

A psychological study of this dictator *en miniature,* his character and methods, would certainly be of great interest and would probably throw some light upon the psychology of leaders, especially of those of a more imperious type. However, this would fall outside the scope of this work. Here our interest is focused upon the reactions of the islanders. But in order to give our account the necessary background we must even say a few words about the missionary himself and his governmental methods.

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[1] The Rev. Rogers was an enthusiastic believer in the Boy Scout movement and had started a Boy Scout Troop in Tristan.

[2] This statement is based on oral infomations by several islanders.

The missionary, as mentioned, arrived in Tristan in 1934, and served for three years until February 1937, when he was taken home on furlough. He returned in December that year for another period of three years. It is not known, however, whether he has ever been taken away as the war may have prevented a communication with the island.

The authority that he established for himself in Tristan was really an absolute authority. Power, namely, was its main basis. Neither did the missionary enjoy the pleasure of a leadership on the basis of an implicit or explicit acknowledgement of his personal ability or the benefit of his enterprises, nor was he, himself, in any way contented with the homage generally paid to a priest. He claimed an absolute and total submission of the islanders.

Now it is evident that the missionary has not in hand any such enforcements as are generally at the command of, say, a totalitarian or revolutionary government. There are no soldiers nor a police in Tristan. However, the mere threat of the use of force may be nearly as effective as the actual use of it provided it is believed that instruments of power are at hand to be put into effect if necessary. Here the islanders' lack of knowledge of factual matters and conditions in the outside world plays an important part. When the missionary announced himself to be the delegate of the S. P. G. and the British Government, with the expressed mission "to rule over the island", it should be borne in mind that to the islanders both the "S. P. G." and the "British Government" are most mysterious bodies invested with unsuspected powers. He appealed to both extended and detailed commissions from the Colonial Office or other real or supposed authority, and threatened that drastic punishments would be put into effect if the islanders did not submit to his régime. He had even foreshadowed a wholesale evacuation of the island by Government authority, and it is characteristic of the islanders' attitude in this question that this was about the most effective threat that he could have advanced.

Even the presence of our expedition was utilized by the pastor for the consolidation of his power. I have already mentioned that we were declared to be a kind of delegates of the British Government, sent out to "inspect" the island and to write a report which would be decisive for the future of the islanders. Through our wireless we were going to send reports to the Government and receive its orders about suitable measures in case of trouble. The islanders were relieved to hear that our wireless station was too weak to establish a connection even with South-African stations. But just a few days before we left, the mail brought a wireless receiver with a wind vane accumulator for the missionary, a large and awe-inspiring apparatus to the islanders, who do not know much about the technics of the modern world. And this receiver, he explained to the trembling islanders, would enable him to receive the Government's orders directly and without loss of time.

But he also harped on other strings. He obviously tried to win the islanders even through persuations and made appeals to their gratitude towards the S. P. G. that had done so much for them (what it really has) and towards himself who had sacrificed so much by leaving the civilized world for the islanders' sake and was such an excellent doctor and general leader to them! But he could also reprove, and a public chicane of individuals whom he found had neglected his authority or tried to evade his control was an important and frequently applied weapon in his hand.

But it was above all in his economic policy that he sought and found the basis of his power. In this policy the erection of a storehouse played a most important part. Previously, all supplies that were sent to the island or were otherwise acquired from outside sources, were immediately distributed among the households according to the size of the families. The missionary now arranged that all these stores should be brought to a storehouse where they were stored under his supervision, and from which he distributed rations, the size and frequency of which he determined at pleasure. This arrangement was not only applied to the stores and supplies that were sent as gifts to the island through the S. P. G. and shipped under Government authority, but even what "the island" received from passing ships, as gifts or by barter, was seized by the missionary and brought to the storehouse. His publicly announced intention by this arrangement was "to keep the island from starvation", and on this background he conducted a most energetic propaganda amongst the islanders for his storehouse, and declared cathegorically that they could not live without it. But, besides, he had an obvious and very important ulterior motive, when he established his storehouse, and it was actually only his candour that surprised us when on one occasion he explained to a group of Norwegians that "the way to rule Tristan is to have your storehouse full and keep the key". In accordance with this view of the benefit of a storehouse he disposed of the stores much in accordance with his own interests, distributing extra gifts to those who submitted to his régime, and threatening that those who endeavoured to set at nought his orders would be kept out of their rations. He also declared that the supply of commodities for the island was, on the part of the British Government and the S. P. G., conditioned by the islanders' subordination to his authority: Would they go without authority they would also have to go without support, as he declared in one of his programmatic sermons.

At the same time he propagated strongly against all other means and methods of acquiring commodities from outside sources, and induced the islanders to give their artefacts to the S. P. G. (which he described as "the real centre of Tristan") instead of selling them or sending them as gifts to private benefactors. Thereby he made strong appeals to their gratitude as well as to their self-respect and general sense of honour. The "indirect barter", *i. e.* the mutual exchange of gifts by mail between individual islanders and English benefactors, was simply stamped as "begging". He also tried to prevent any trading intercourse between the islanders and the Norwegian Expedition or any of its members, put an interdict on private gifts and private barter, and highly disapproved of the Expedition bartering island curios from individual islanders for wood materials etc. Apparently, he endeavoured to monopolize all imports for his storehouse, so that the islanders should be unable to acquire any kinds of outside supplies except through him.

It is obvious that a governmental system like this cannot subsist without a thorough intellectual control — based as it is on a propaganda which, anyhow, gives a one-sided presentation of the facts and sometimes even conflicts with them in essential points. It is probably on this background that we must look at the missionary's endeavours to isolate the island or, anyhow, to control the islanders' intercourse with the outside world. Actually, he tried to establish a regular censorship of all letters going out from Tristan, claiming that he had "authority from the S. P. G." to read all letters. Therefore, he insisted that all letters should be given to him in an unsealed state, which would "make his work easier". As to the relationship between the Norwegian Expedition and the islanders, even here he tried to maintain a thorough isolation. He ventured to prohibit us at all getting into contact with the people — only the doctor and the dentist should be allowed to get in touch with the islanders, and then only on the basis of their respective branches. An interdict was put on visits to the islanders' houses. Likewise, he forbade the islanders to visit our house or to invite any of us into their own houses. As these prohibitions proved impracticable he tried to frighten the islanders, warning them that whatever they told us would be put down in our report and thus contribute to the determination of their future lot.

It is evident that the introduction of an absolute authority in Tristan da Cunha could only be felt as a blow to the group character of the islanders with its strong spirit of individualism, liberty, and humanity. And the attempt could only be carried out in a successful way and stabilized, under the condition that these character traits were eliminated, and replaced by a new spirit of corporative solidarity, or collectivism, which calls for the total efforts of the entire personality for the benefit of the group.

As an endeavour to create such a new sense of solidarity the missionary set about a series of enterprises which he claimed would greatly improve conditions of life "for the happiness and well-being of the island", and tried to arouse the islanders' interest in these schemes. This activity included among many other things the erection of a two-bed "hospital" in the parsonage (it has now also got its own building) to which, for want of more serious complaints, he ordered people to be removed for tooth-ache, asthma, and migraine. A small lantern was built which should serve as a "lighthouse", and a large piece of ground was cleared of stones and provided with a large pole in its centre — this should be a landing-place for airplanes. More reasonable seemed the arrangement of "rat days" for the extermination of the rats, whereby the entire population was engaged in a co-operative rat hunting. One of his more important enterprises was also the erection of a storehouse already referred to. But the most ambitious scheme conceived and set on foot by the missionary was the starting of a "Five Year Plan" to secure a better supply of food from the islands' own produce. Part of this plan was the colonization of Inaccessible Island which was started in 1936. He persuaded 14 young men to go with him as "pioneers" to start the enterprise, and, though it turned out a complete failure, the experiment was repeated the next year — as we heard, with a still poorer result. Nevertheless, the plan was not given up, and as long as we stayed on the island the "Five Year Plan" and the glorious time that should follow from its successful accomplishment was a constant and prominent point in the missionary's speeches.

However, in spite of the missionary's efforts to create a new sense of solidarity and a more collectivistic life attitude by his constant admonitions to "pull together" and "have one leader", there is so far no sign of a development in this direction. On the contrary, the islanders certainly feel the policy of the missionary as a threat against their accustomed and much cherished individual freedom which, apparently, they are not at all inclined to give up. We had not been many days on Tristan before we noticed a strong and almost unanimous discontent with the missionary's régime. It was fashionable among the islanders to speak ill of the priest when he was not present, and he was the object of much mirth and disrespectful jokes. He was always only referred to by a somewhat contemptuous "he"; many of his enterprises were laughed at, and all of them were regarded as more or less senseless. In some cases the islanders even believed they saw another real motive behind the confessed pretext: it was commonly maintained that the "Five Year-Plan" and other schemes were only set about by the missionary "to make himself a name". But especially the storehouse was the object of much criticism: The islanders felt that they were being deprived of the pleasure of a temporary plenty, and of the possibility of an occasional wasteful display of luxuries which plays such a great part in their feasts. And they maintained that the things were spoilt in the storehouse on account of unsatisfactory storage. Many a whispered story was told about spoilt foods and other articles that in the darkness had been dumped into the sea, but had afterwards been washed up on some beach.

We also soon noticed a not inconsiderable passive resistance to the missionary's régime. Whenever they saw a chance to do so the islanders simply neglected his decrees and orders. Thus, for instance, his interdiction of the islanders visiting our house was apparently absolutely devoid of effect. And just as ineffective were his endeavours to prohibit any presents to be given to us, potatoes to be dug before Christmas, and so on. Letters were sealed and given in at the last moment lest he should get time to read them, or they were taken on board by the islanders themselves and handed directly to the officer in charge of the post. In most of their daily life the islanders went on absolutely unaffected by the missionary's decrees and wishes: "We don't care of the minister! He's a crazy fellow!"

Even open conflicts had occurred with individual islanders, and in a few more extreme cases the islander involved had refused to go to church and to receive any rations or shares from the storehouse for himself and his house — an attitude which never failed to bring about the most excited outbursts of rage from the minister. There was one such conflict during our stay on the island, and there had been at least one before. It was also openly confessed (to us) that the comparatively marked increase lately in conversions to the Roman Catholic Church (see below) was directly provoked by the policy of the missionary: By joining the little Roman Catholic congregation some islanders tried to withdraw from the influence and power of the Anglican priest.

This resistance of the islanders to the missionary's régime undoubtedly had good support in the attitude of Frances Repetto. Not that she directly induced the islanders to resistance, nor did she take any very active part in the usual gossip about the missionary. But by her intelligent criticism of various enterprises of the missionary — to which she frankly gave expression whenever an occasion was offered — she certainly acted as an example to the other islanders and indirectly encouraged their resistance. She also produced — maybe unintentionally — a not unimportant propaganda against the most significant of the missionary's enterprises, the storehouse, maintaining that a storehouse was certainly of some use to the contemptible lazy dogs who did not look ahead and were unable to save some of their stores "for a rainy day", but was otherwise of little importance as it "cannot support 42 families". Besides, — and this assertion was produced whenever the storehouse was talked of — "every man on Tristan da Cunha can make his own living if he works on his potatoes, and looks ahead, and saves something for a rainy day".

However, there were no signs of an organized and concerted resistance of the whole community to the missionary's régime. Here, for one thing, the islanders' strong and consistent indivualism shows its reverse side. It is as individuals, not as a group, that the islanders enjoy their freedom as an inviolable right, and it is as individuals, not as a group, that they feel the missionary's régime as a threat against this right. Certaily, even in this point there is a sense of solidarity among the islanders, but this solidarity is not of a kind that would bring about anything like a concerted defence against a felt threat. Even in case of an open conflict the opponent will have to be content with his associates' passive sympathy and, otherwise, can only trust to his own psychic and economic resisting powers. And this passive attitude is not due to an egoistic pliancy against a (maybe unconsciously admitted) social claim, as there apparently is no social claim at all to an active assistance in a case like this. Not even the most prominent and most loyal islanders seem to feel any obligation to this end. On the contrary, it is a matter of loyalty towards the group and its order — and herein also their solidarity evidences itself — that they do not interfere uninvited with each other's private affairs. And when a man has begun a conflict to assert his indivual rights, it seems to be regarded as his private affair to carry it through.

This strong and consistent individualism is also the immediate background for the fact that many islanders are rather easily bought over for a few extra gifts from the storehouse. The acceptance of such a gift, however, is clearly regarded as an infraction of solidarity, as there is a strong sense that what is found in the storehouse is actually the joint property of the island. If the matter becomes known — and it always will in this transparent community — the receiver is disrespected and even distrusted and branded as an informer for the missionary. Therefore, it is chiefly only the peripheral elements in the community who seek and accept the missionary's favour in this way, people who have little social prestige beforehand and, therefore, also a weak sense of solidarity with the rest of the community. It is even characteristic that these flunkeys for the missionary are mostly found among "those who don't work". But there are also a few others, and in one or two cases a repressed want of social self-assertion seems to have played a certain rôle, as a collusion with the missionary apparently creates a pleasant feeling of secret power. — But, whatever the motives may be, it is evident that these conditions signify a weakening of the islanders' joint resisting powers, and render unanimous resistance impossible.

Besides, it is quite clear that the missionary's somewhat terroristic propaganda was of great effect. Of course, his threats of governmental punishments (including deportation) in case of non-submittance could not fail to be effective under the given conditions. There was a good portion of fear, therefore, in the islanders' attitude towards the missionary. And, as an open face-to-face conflict was naturally much against the psychic disposition of these peaceful people, they were in their relations to the priest actually like a group of school children towards their teacher, making mirth at him when he was not present and disavowing him whenever they saw a chance, but respectful and submissive and paying him a subservient lip-homage when facing him in person. Frequently, a vociferous scolding from the missionary was enough to chill an eventual recalcitrance on the part of an islander.[1] And downright opposition from an individual, when such arose, always ended in nothing after some time. For the greater part the islanders let him have his will for the sake of peace and quietness.

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[1] One day I happened to witness a scene which is very characteristic as it shows how incipient opposition could be balked by a good scolding from the missionary:

A young man had gone to bed because he felt ill and had sent for our medical man to come to see him. This, apparently, in the eyes of the missionary, was a serious insubordination as he claimed to be the "doctor" of the island. Suddenly the missionary made his appearance and at once rushed up to the bed, seized the patient's wrist as if to feel his pulse, and the following exchange took place:

Priest (very angry): "Why didn't you send for me?"

Patient (bold at first): "I wanted to see a decent doctor!"

Priest: "Don't you know that I am the first man on the island?"

Patient (a little more respectful): "I know you's the first man on the island."

Priest: "Also from a medical point of view!"

Patient (now quite submissive): "Yes, Father."

And the islanders resigned themselves to their fate with great patience and a good mood. Here, again, they have a great asset in their cheerfulness, and their ability to turn to the humorous aspect of things. The missionary, with all his enterprises is to them a constant source of mirth, and the jokes that are made about him are countless. Besides, they lived in a firm conviction that the missionary's régime was but an episode. In due time, they knew, he would be fetched home, and they would be delivered from their tormentor and could resume their old life in freedom and peace.

6. Property and Other Rights.

In the foregoing we have repeatedly touched on the question of property in Tristan da Cunha, and we shall have to return to it in other connections. It will be necessary, however, to give an aggregate and, at the same time, fuller survey of the subject. For not only is property one of the most important aspects of human economics, but even if we limit ourselves to Tristan da Cunha, the development of the property conditions in this community exhibits such interesting traits that these alone may justify the writing of a special chapter on the topic.

One of the most remarkable traits in the economic history of Tristan da Cunha is the development from communal to private ownership. This development, of course, has a very close connection with the general dissolution of the original socialistic community into a group of self-dependent families and is, partly at least, a consequence of the increasing isolation of the community and the cessation of communal trade with the outside world.

We are unable to follow this development in detail. However, it must have taken place fairly early in the history of the community. Certainly, in principle, communal ownership was actually abandoned and a private ownership introduced already in the agreement of 1821, in that the rights of proprietorship to land, stock, etc. were allotted to the original settlers. But as this proprietorship was combined with a general communal usufruct, it was hardly of any significance in the social life of the settlers. Already from the outset, however, there was an important restriction of the principle of communism as applied in this community: The profit arising from the produce of the land and otherwise through the agency of the "firm" was apparently not added to the capital of communal property, but was equally divided amongst the individual members of the "firm", probably in the form of money, which seems to have played a certain rôle in the economic life of the settlers. In this way the individual settler could acquire a small fortune of his own and was enabled to buy his own cattle and sheep and, on the whole, to establish a private household. In any case, as we have seen, there was private ownership of sheep in 1855, and probably of cattle. Likewise, the dwellings were privately owned as appears from Taylor's account of the purchase of Daley's house for a church-house (1856, p. 75). As regards the land, it very soon seems to have become a custom that each new settler cleared his own plot for pastures and cultivation,[1] and these plots were, partly at least, named after the clearer, as is seen from some topographical names still in use in Tristan, such as Boatswain's Piece, Doffey's Piece, Daley's Hill, Dick's Hill, etc., all of them denominating small districts on the north-western plain. As far as the persons concerned can be identified at all they belong to the early settlers, and the fact that their names have been conserved in connection with these plots may be taken as an indication that they had achieved in the eyes of the community a more permanent affinity to their respective thwaites, in other words that they had acquired a recognized private right of user, if not of actual proprietorship, to the land. At the same time the land already cleared before 1821 (and only that!) must have been recognized as the private property of the original settlers — *i. e.* of William Glass —, not only nominally. Only thus can we explain the fact that, in 1884, Andrew Hagan — the probable sole heir to Glass' property — had "come in possession of nearly half of the cattle on the island, likewise the pasture".[2] Here a private ownership of land — and not only of the cultivated land — is expressly assumed.

However this may be, to-day there is very little left of the original communism of property. Among the things that may still be said to be the joint property of the whole community a distinction is made by the islanders between such objects as are said to belong to the island, and such as are termed an all hands' thing. And these terms clearly indicate a difference in the relationship of the community to the object concerned. An actual communal ownership, with an exclusive usufruct and right of disposition for the community as a whole, may only be said to exist in the former case. A thing that is said to "belong to the island" is undisputedly the sole property of the community as one body and may not be disposed of unless by the common consent of the men, and only for the benefit of the whole island. This joint property includes two life-boats, a pedigree Ayrshire bull, seven brood sheep, and four pigs. Also the stores kept in the storehouse come under the same category. Although the missionary has presently taken charge of them and disposes of them much in accordance with his own policy, the islanders have a strong feeling that the stores are actually the joint property of "the island", whereof every individual has the right to an equal share. When, occasionally, the missionary distributes private gifts from the storehouse he is considered to "deal unfair".[1]

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[1] Cp. letter from Peter Green to the Admiralty, of Dec. 29, 1884 (Correspondence, p. 35).

[2] Peter Green's Letter to the Admiralty (Correspondence, p. 35).

An "all hands' thing" on the contrary, is not actually a *res nullius:* it may not be appropriated by an individual islander or a group of individuals, neither can an individual carry off any part of it and, thereby or otherwise, reduce its value for his own private ends. But anybody may make private use of it without the consent of the others. This laxer form of joint ownership is applied to a few huts, one or two in The Patches and two in Stony Beach, which have been erected through the joint work of all the men. In the orchards in Stony Beach there are also a few "all hands' trees". These were actually planted by the "old hands" some forty or fifty years ago, but their actual ownership conditions have obviously been forgotten; in any case, the exclusive claims of the original owners are no more maintained or recognized, and anybody may pick their fruit.

Private ownership is, in the first place, applied to movables of every description. Cattle, sheep, and all other kinds of domestic animals, as well as boats, ox-carts, and other tools, are privately owned by individual islanders. And, although the greater part of the cattle, sheep, and donkeys — as well as the boats and ox-carts — are owned by the house-fathers, likewise the poultry by the house-wives, even the children and other members of the house may have their individual property. However, as the house is the consumptive unit of the community, a restriction of the individual right of proprietorship obtains for such property that is of economic importance for the house as a whole, forming the economic basis for its subsistence. This restriction is involved in the acknowledged duty of any house-fellow to place any property of this description at the disposal of the house according to the requirements of the house. And this applies no less to the property of the house-father than to that of any other member of the house. On the contrary, in certain cases we almost get the impression that the house-father's property actually belongs more to this house than to himself, a fact which plays a certain rôle for the transmission of inheritance (see below). The same restriction also applies to other movables which may be said to belong individually to the house-father or the house-wife, but according to their nature are for the common good of the house, such as furniture, household utensils, etc.

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[1] Some property is placed at the disposal of the resident missionary for the time being. This included in 1938 a dwelling house, 4 sheep, 2 geese, 5 ducks, and 24 fowls. These are, partly at least, procured by the islanders for the missionary's own use, who, at his departure, must leave them to his successor. So even this property may be said, in some way, to "belong to the island".

A more exclusive individual right of proprietorship, however, is recognized for certain kinds of movables. Naturally, such right applies in the first place to clothes and other personal outfit, but it also extends to certain other movables, such as wood materials and smaller artefacts, which even a dependent member of the house may keep for his or her own private and individual use.

A remarkable restriction in the private right of ownership obtains in the case of the cattle in Seal Bay. Even these cattle are privately owned. But as they are kept only for their meat and to supply the stock of draught bullocks, not for their milk which is never taken home, the latter is actually regarded as a kind of *res nullius,* open to anyone's occupation. Whenever a party of islanders go round to Seal Bay and spends the night there, such a party have by common consent the right to take all the milk that may be had regardless of the actual ownership conditions. If there is more than one gang of islanders at the place at the same time, the milk obtained is divided between the parties according to the number of members in each gang. No owner can withdraw his cows from this communal usufruct, which is even unconditioned by the presence of any of the owners.

Other "practical communism" in the form of an obligation to share the produce of one's property or work with the other members of the community does not exist, with the only exception that when a party returns from the apple harvest there is a general and liberal distribution of apples for direct consumption on the beach.

Larger objects like boats and cattle are frequently owned by a group of joint owners. This, in the first place, is always the case with the boats. Usually, there are just as many owners as required for a full crew, namely seven in the long boats and four or five in the dinghies. A small dinghy, however, may be handled even on the beach by two or three men and may have as few owners, while, on the other hand, a long boat may have as many as eight owners. But even the cattle are, for the greater part, owned by such groups of joint owners. This applies especially to the cattle "round the beaches", *i. e.* on the other side of the island. But there is also joint ownership to cattle on "this side". These co-ownership groups mostly comprise only two members, but there are also groups of three or four up to eight members. As one man may be a member of as many as five different groups of joint owners, the ownership conditions are rather complex. Peculiar — and the source of some difficulties and even of small conflicts — is the fact that each member of a group of joint owners seems to have an individual right of usufruct to the property of the group. Thus a man may freely use the draught bullocks of the gang, or milk one of its cows, without asking the other members. Likewise, each joint owner of a boat may dispose of it individually and take it off with a casual gang of helpers, seemingly without asking the permission of the other owners, though, of course, his co-owners have a prior right to join the party if they wish. In accordance with this practice the islanders never talk about "our bullock" or "our boat", they always say "my bullock", "my boat", even if they have only a share in it.

The Tristan islanders only seldom mark their property. Obviously, in this small and transparent community there is not much need of property marks as anybody easily recognizes and is able at any moment to identify his property. Certainly, when seizing a *res nullius* (*e. g.* a piece of drift-wood) an islander may mark it with a causal mark indicating that the thing is occupied. This, however, is only a temporary measure until the thing is taken home. Permanent property marks are only used on cattle, sheep, and geese. On cattle and sheep the marks consist of ear-marks, and the geese are marked by various splits and cuts in web and toes. These property marks were not studied in detail. However, there did not seem to be many varieties of marks, and especially with regard to the cattle, with their rather complex ownership conditions, they must be supplemented by other, inborn, marks of identification. But as there are so few cattle on the island, and as each islander knows every one of his own cattle by looks, there seems to be no difficulties on this account. As a rule it will suffice that the cattle belonging to a group of joint owners wear the mark of one or the other of the individual members.

In the acquisition of movables, purchase plays only a negligible part as compared with other communities with more developed economic systems. However, part of the imports to the island, as we have seen, is still conducted through barter with sailors and passengers on board passing ships. This barter still remains, perhaps, the main source for the acquisition of clothes for the men. And even among the islanders themselves there is some bargaining. As money is not used on the island, the only form of bargaining, of course, is by barter: A calf or a sheep may be bartered for wood materials or for a bag of potatoes, etc. And if the buyer has nothing else to give in exchange for the thing he wants, he may do a piece of work for the owner, for instance fetch him a certain amount of wood for fuel. This form of acquisition applies especially to such movables as can only be acquired through transfer of property, such as cattle, sheep, and other domestic animals. But even here it is only seldom practised. To acquire by bargain an article which could easily be produced by one's own work (*e. g.* potatoes) is considered little creditable and will involve the buyer in some contempt as a man who "don't work".

A much more important form of acquisition is the transfer of property through voluntary gifts. Thus the gift is the most important form of acquisition of all articles of every description which are imported to the island. But even in the islanders' own social life, as previously mentioned, mutual gifts and services play a prominent part. Above all the gift is the usual form by which a young man may acquire his first property of cattle and sheep and is enabled to make a start when he is about to establish his own household. Otherwise, however, this form of acquisition is, in the interrelations of the islanders, largely confined to smaller home-made articles and personal articles of use.

On the whole, however, transfer of property, either by bargain or by gift, does not play a prominent part in the economic life of the islanders. More important is the more primitive form of acquisition which may be termed original acquisition, and whose main forms are occupation and labour.[1]

Simple occupation as a source of appropriation is applied to all kinds of goods obtained directly from the natural sources of the physical environment. These are regarded as *res nullius,* and there are no restrictions in the right of occupation. Only the source itself may not be appropriated. Thus a man cannot claim an exclusive right to hunt for birds and eggs in a certain district, or occupy an area of woods for his own use. Certainly, some of the men seem to have their habitual hunting grounds where they go year after year, and this custom has given rise to a few topographical names, such as Joey's Garden and Where

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[1] See Vinogradoff, 1925, p. 70 sq. Vinogradoff reckons also a third form of original acquisition, namely domination. This, however, is out of question in Tristan da Cunha where any form of domination is so strongly against the very group character of the community.

Cook Hunt. However, it is not known whether these hunting grounds were at all respected by the others. At any rate, no claim to this end would be socially recognized. Neither is there among the Tristan islanders any sense that the islands with all their natural sources actually belong to the community. Such sense of a communal domination of natural sources, as all experience shows, only develops where a community feels its economic interests threatened by the presence of a neighbouring community. Such a threat is out of the question in Tristan because of the great isolation of the community. Therefore it has also proved impossible to bring about a somewhat rational utilization of the natural sources: as we have seen, they are utilised in a rather wasteful way without regard to the future generations.

The principle is that anybody may pick and gather wherever he wants, and whatever he picks and gathers is his exclusive property from the moment he puts his hand to it. This right of proprietorship is recognized even if the goods are left behind anywhere on the island, provided it is made clear to everybody that the things are occupied (*e. g.* by putting them in a heap or bundle). Driftwood, for instance, is occupied by the finder by putting it up above highwater mark, and there he may leave it for an indefinite period, even for several years, without anybody else being able to claim it.

As Vinogradoff rightly remarks, no sharp line can be drawn between occupation and labour as a source of appropriation. Thus also in Tristan da Cunha. If a man plants an apple tree it costs him no more labour than when he collects a bundle of wood, but this is the way in which a man acquires an orchard. By this simple action he has acquired for all future time the exclusive right to pick the fruit from that tree. However, acquisition through labour is naturally in the first place applied to actual hand-made of every description, then also to the produce of the cultivated land. Whatever a man has produced by his own manual work is his undisputed property. Certainly, when a man calls in the assistance of others for the performance of a certain work, the helpers are not entitled to any share in the product. In that case, however, a special arrangement is agreed upon beforehand. The rule is that a man retains the product of his work as his exclusive property, and when a number of men join in a work, as is always the case in the building of a boat, each worker gets an equal share in the product.

Actually, labour is the most important form of acquisition in Tristan da Cunha and widely outbalances all other forms, for instance purchase. This is a markedly primitive trait which, of course, has a very close connection with the absence of any established division of labour and, on the whole, with the primitive economic conditions of the island. We have already touched on this question in connection with the prestige attached to work in Tristan. We have found that work is the only means by which a man may acquire the basic economic goods in Tristan da Cunha, namely potatoes. Likewise, any larger artefact, such as a boat or an ox-cart, as well as tools (as far as they are of island make) can only be acquired through one's own manual work.

Whereas private ownership is thus fully recognized as far as chattels are concerned, the relationship of the Tristan islanders to immovable property is in many respects of a different nature. Certainly, the houses are privately owned. And, even here, labour is the most common form of acquisition, the house being mostly owned by the man who has built it. The older houses, however, — of which there are a number — have naturally been handed over to their present possessors by some form of transfer of property. The most common form is inheritance (see below). Purchase plays a very unimportant part even here, though in the older days it seems to have been quite a common form of handing over a house. As far as I know, there is only one man living in Tristan to-day who has acquired his house by purchase. More common is the acquisition by reoccupation of an abandoned dwelling. The many people who left the island after 1885 apparently did not sell their houses, as was common in the older days when a man went away, but left them to the care of some relative. Sometimes the relative would move into the house and occupy it, or he would let somebody else live in it temporarily. But the proprietorship of the original owner remained undisputed for many years. However, as time went on without the return of the original owner, it seems that the new possessor acquired a certain prescription to the dwelling. To-day, at any rate, the possessors regard themselves as owners of the houses thus acquired, and are also recognized as such by the community, obviously on the assumption that the original owner will never return.

With regard to landed property, the pastures are now open and free, with free right for anybody to make use of them, and they are actually used by the whole population in common. Accordingly, the land seems to be regarded as communal property. This is a new development in relation to the conditions prevailing in 1884, a step back to the original communism. But it cannot be ascertained how this development has been accomplished.

However, there is admittance of appropriation by simple occupation, and in this way all cultivated land is privately owned. Occupation is accomplished by fencing, and the occupant has a full right of proprietorship to the fenced-in plot as long as the fencing is effective against the cattle. Such a plot is subject to inheritance and may also be handed over by gift or sale, though this practically never occurs.[1] The right of appropriation is limited in that no man may appropriate land except for cultivation. Thus a man is actually debarred from appropriating more land than he is able to cultivate by his own and his housemates' work. It is the recognized rule, too, that the right of proprietorship is only retained as long as the land is actually under cultivation, and that an appropriated piece of land may be thrown open if it is not used, whereby the idea comes into expression that the land is actually the joint property of the community. This rule, however, is no longer effected. In reality, the private right does not lapse by lack of use, as is often the case under similar conditions in other societies,[2] but remains recognized as long as the owner upholds his claims to it, whether it is actually cultivated or not. If he allows the fence to fall out of repair, so that cattle may invade his patch, it seems to be regarded as having reverted to the condition of open pastures. But even then the original owner has obviously a prior right to reoccupation for an indefinite period of time. Although several abandoned patches were seen during our visit to the island, I know no case of such a patch having been expropriated by the encroachment of the community.

If this rule has ever been practised, the omission to apply it now actually means a development towards a more firm private ownership of land coupled with a weakening of the claims of the community to all uncultivated land. In that a man maintains an unlimited title to the land he has appropriated from the common land by simple occupation, the latter is, in practice, actually treated more as a *res nullius* than as the actual property of the community.

This system with regard to tenure of land, with common pastures but free admittance of appropriation for cultivation, has obviously developed in Tristan da Cunha independently of any influence from outside. The more interesting is the fact that this system is closely related to the corresponding systems found with a number of primitive and ancient people.[3] Again we are faced with a distinct trait of the primitivization in Tristan da Cunha of the original European culture, through the adjustment to a small, poor, and isolated territory.

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[1] I had report of only one instance of appropriated land having been transferred by sale: A poor and lazy fellow had sold one of his potato patches for a sheep in order to cover his immediate need of food.

[2] See e. g. Karsten, 1932, p. 94, cp. Vinogradoff, 1925, p. 74 and, for other property than land, p. 71 sq.

[3] See, besides Karsten, 1932, p. 94, Stevenson, 1904, p. 290, Karsten, 1928, p. 143 sq., Lowie, 1921, p. 201 sq.; cp. the corresponding appointment in the laws of Manu, Vinogradoff, 1925, p. 74.

In the foregoing we have mentioned the various forms of acquiring property, but have disregarded one important form, namely inheritance. — It is the recognized rule in Tristan that, on the death of the house-father, his wife takes over all his property, and if the wife is not alive, or on her death, all the children are entitled equally. In so far, the entail is quite simple. In practice, however, conditions may be very different from this. Certainly, the more personal possessions of a deceased seem to be apportioned in accordance with the recognized rule, but as regards the greater values, such as form the real economic basis of the house, a custom has developed which reminds one of the junior right as found with a great many peoples all over the world, in that the youngest son (or daughter if there are no sons) usually takes over the dwelling, the cattle, the appropriated land, and whatever is of any economic importance to the household.

In another connection we have already referred to the custom that when the last son marries, the father may leave him one or two rooms of his dwelling to live in, and usually, if there are no unmarried daughters remaining in the father's house, the two families will together form a compound house. Thus, although the young man will probably have his own cattle and sheep, and his own appropriated land, he will continue to have the benefit of the father's property, his dwelling, his potato patches, and his cattle, in the same way as before he married. On the other hand, as the father grows old, an ever increasing part of the work connected with the cultivation of the patches and the herding of the cattle and sheep belonging to the house will fall upon the son, until at last, when the father retires from all work, he will be left to dispose of the aggregate property of the house almost as his own property. So it is just a continuation of an already established arrangement when he remains in possession of the property also after the death of the father.[1] Actually, the existence of the house as a social unit is continued unaffected by the old man's death, and the property remains with the house. Whether the mother is alive or not does not really make any difference to the matter, and hence it may happen that a man actually takes over his father's property while his mother is still alive. Here, then, is given expression to the high degree in which a man's property actually belongs to the house.

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[1] It is interesting to note that in the majority of cases where junior right is found, the social and economic background is very similar to that prevailing in Tristan. See, for instance, Lowie, 1921, p. 239 sq., especially p. 243, Solem, 1933, p. 169 sq., 176 sq.

An actual junior right, however, — established or recognized even as a right — does not exist in Tristan. The rule is that the property of a deceased descends to the one by whom the existence of the house as a social unit is actually continued, and although it is usual for the youngest son to play this rôle, this is not an indispensable rule. Above all, he has no positive claim to the inheritance. In certain circumstances an unmarried and unprovided daughter may have the prerogative.

7. Labour and Leisure.

Co-operation and Mutual Assistance.

Organized and Unorganized Co-operation (Division of Labour).

The most primitive form of co-operation is that form wherein a number of persons do like things together, or work together on the same piece of work without any organization, *i. e.* without any established division of tasks between the partakers in the work. Far more "advanced" — from an evolutionist point of view — is that form of co-operation wherein a number of persons do different things towards a single end, *i. e.* where there is an established division of labour so that the performers of the various tasks form a kind of organ for a larger unit.

Organized co-operation belongs in its developed forms to the higher cultures. However, even in the most primitive forms of human society there is an established division of labour between the sexes and, in a great many societies, even a more or less elaborate division of labour between the different age groups, thus establishing an organized co-operation of the family at least. Actually, it is this division of labour that makes the family the most effective co-operative group even in the lowest cultures because this group from its very nature always consists of representatives of different sexes and age groups.

Also in Tristan da Cunha there is an organized co-operation of the "house" in that there is a most elaborate division of labour between the sexes as well as between the age groups. Especially is the ascription of different labour to each of the two sexes of a most consistent character. Each sex has its well defined domain of the economic life where it claims conversance with the subject to the exclusion of the other sex, and the boundary between these domains is seldom or never passed, nobody ever penetrating into the domain of the other sex. Thus, for instance, though the husband is the master of the house and has an almost unrestricted control with its aggregate property, the command and right to dispose of the geese and other poultry is entirely left to the wife and daughters, because attending to the poultry is the women's work. Most of the men did not even know how many geese and fowls belonged to the house, but had to ask their wives about it. A direct co-operation of the two sexes occurs in certain cases, usually so that the women assist their husbands in certain special kinds of work. But even then there is mostly a clear delimitation of the field of each sex.

In the way in which the labour is divided amongst the various groups, the Tristan community, again, shows a very close affinity to European society, although in the details of its framing, the Tristan pattern obviously exhibits many peculiarities which are partly due to an adaptation to the peculiar conditions of the physical environment.

As seems natural to a European, the heaviest and most exacting kinds of work are ascribed to the men, though this rule is not without exceptions. Thus the men have most of the out-door work connected with the production and transportation of the necessaries of life. In the performance of this function they roam all over the territory, frequently making excursions on the hill, to the other side of the island, or to the other islands. The women, on the other hand, have most of their work in or near the houses, being mainly occupied with housekeeping, baby tending, and the preparation of food, besides washing, sewing, and knitting. In addition to their main pursuits, however, they assist their husbands in certain special kinds of work and thereby sometimes accompany the men on their excursions. Adolescent boys and girls assist their parents in their work, but have also their special duties. However, their working power is never claimed outside the immediate environment of the houses, *i. e.* the north-western plain.

Exclusively the men's work is, first of all, the building, maintenance, and handling of the boats. The women never put their foot in a boat except as passengers when they accompany the men on some excursion to the other side of the island, and as such they always maintain a passive attitude. They are always placed in the boat before it is launched, and they always remain in it until it has been beached so far that the men can carry them on shore through the surf. I only once saw two women help their husbands drag a dinghy down the steep road from The Boathouse to Little Beach, as there were no other men present who could assist.

Hunting as well as collection of eggs are also exclusively male occupations. Only on the great hunting expedition to Nightingale in March or April, when they go "for fat", the men are accompanied by the women, and on this occasion it is the women's task to extract the fat and to salt down the meat. But they do not take part in the actual hunting and killing of the birds.

Likewise, fishing is regularly done by he men. It is the women's duty, however, to appear on the beach when the fisher boats return and help their husbands clean the fish. Even children take part in this work. Otherwise, women and children sometimes fish small fish from the beach, just for amusement.

Farming, no doubt, is the most important occupation of the Tristan islanders, and in this work both men, women, and children are engaged. However, even here the greater part of the work is ascribed to the men.

In the first place, it is the men's work to look after all the quadrupeds. They mark the calves and transfer cattle from one pasturage to the other. They "turn in" the calves to prevent them from sucking. But milking is always done by a woman, sometimes assisted by one or two men who hold the cow. Further, it is naturally the men who break in and train the bullocks and donkeys, and even drive them. The women sometimes drive the donkeys. But I never saw a woman drive a pair of bullocks or have anything to do with them at all. Adolescent boys, however, are frequently used as ox-cart and donkey drivers, especially on busy days when the men are occupied with other kinds of work. Otherwise, it seems to be the special duty of the boys to herd the cattle and donkeys, *i. e.* to "turn in" a milch cow or a pair of bullocks when required, or to fetch a donkey and ride it anywhere it might be wanted. To "turn in" the sheep in the evening, however, is considered a too difficult task for a boy, and is always done by a man with the aid of a dog.

As is very common also in European peasant communities, the poultry belong entirely to the domain of the women who are even regarded as the owners of the fowls, geese, and ducks.

Also the working of the soil is for the greater part a pronounced male pursuit. However, in this work the men are assisted in a valuable way by the adolescent boys, whose labour is utilized for any kind of work that does not make too great demands on either physical strength or experience, such as carting kelp from the beach, fetching grass from the hill-side on a donkey's back, etc. Besides, digging is a work wherein all the aggregate working power of the house is utilized, and men, women, and children take part in it.

The building and maintenance of the houses, of course, is exclusively the men's task, but it is ascribed to the women to keep them clean and in good order. This is one of the most important duties of the women, and certainly their most exacting task. The islanders generally make great claims on the housewife in this respect, and in most houses the floors are scrubbed every day.

The preparation of food is also for the greater part a womanly occupation. The men procure the food, kill the animals, and cut the meat. It is also their work to collect wood for fuel. But cooking is always done by the women. Certainly, on their various excursions the men cook their own meals when they are not accompanied by women, but then their meals are always of the simplest description, consisting of boiled or fried mollies, sometimes with boiled or fried potatoes. When the women accompany the men on these excursions the cooking is, even then, mostly left to them.

Besides housekeeping and cooking the women have all the work connected with the production and care of clothes. Although the production of clothes is very limited in Tristan, the women still sew their own dresses from imported material. The men shear the sheep, but the women card the wool, while the spinning is exclusively done by the young girls. And both women and girls knit socks and other garments for men, women, and children. The only kind of garment exclusively produced by men are the characteristic ox-hide moccasins. Again it is naturally also the women's duty to look after the clothes and keep them clean and in good order.

Even of other in-door work the greater part is performed by women. Thus the characteristic tosselmats and other kinds of mats, fancy caps, purses, etc., are exclusively made by women. The in-door occupations of the men are very limited. Joinery, as we have heard, is the most important male branch of domestic industry in Tristan, and its importance has been increasing in later years since the invention of the model canvas boats. But still this trade is naturally much restricted for want of wood materials. Apart from the model-building it chiefly consists of mending and repairing old tools and furniture.

There is no established division of labour in Tristan da Cunha apart from that existing between the different sex and age groups. Every man is his own smith and joiner, boat-builder and house-builder, he makes his own bullock-cart and yokes, wheelbarrow, and various tools. However, there are certain rather special kinds of work wherein only a few can obtain the practice and experience necessary for a first-class result, such as the making of a good spinning wheel, or a wooden sofa, and sometimes when a man wishes to have such work done he will take the necessary materials to another and more competent fellow and ask him to do the work for him. Thus there was one man who was reported to be particularly clever in making spinning wheels, and had been the maker of all the spinning wheels on the island except one. Another instance of an incipient specialization of labour may be seen in the fact that a woman who is the lucky owner of a sewing machine frequently also sews for others. For these machines are never lent out, but the owners willingly help their neighbours and relations in sewing, taking their machines along with them to their houses, thus acting as a kind of professional sempstress in the community.

The Range of Co-operation. The question of an economic co-operation of certain groups in Tristan da Cunha has already been treated in connection with the social structure of the community. We have found that, originally, a total economic co-operation of the whole community prevailed, all the working power and the total economic activity of the individual members being claimed for the pursuit of common interests. Gradually, however, the significance of "the island" as an economic unit has decreased, and to-day the collective eonomic activity of "the island" is very limited. We have further seen that to-day it is the house that forms the all important economic unit in Tristan da Cunha. And this, accordingly, is the group wherein we find both the most extended and the most elaborate economic co-operation. Actually, within the individual house we meet an almost total economic co-operation, corresponding to the almost total solidarity found in this group.

The very strong economic independence of the individual house, however, does not prevent the existence of a most active co-operation beyond the limits of this group. Such co-operation is very common and may be said to be particularly characteristic of the labour conditions in Tristan da Cunha.

As already mentioned, mutual assistance of various kinds plays an important rôle in the social life of the Tristan islanders. Whenever a man wants assistance for the performance of a certain work he is sure to get what he needs — only on the implicit assumption that he is ready to render a similar return service when occasion arises. If he is going to have a greater piece of work done, for instance to build a new house or to fence in a patch of land, he may "have a working day", as the islanders say, *i. e.* he may call a number of assistants to his aid. The employer — if we may call him so — provides the necessary tools in that he goes round and borrows what is available, and the helpers meet at his house early in the morning of the appointed day, bringing their ox-carts if needed. All that the employer has to do in return for the service thus rendered him is to provide food for the day. In like manner a woman may call for the assistance of another woman for the performance of a special work, *e. g.* sewing, and when she is about to have her wool spun, she borrows the necessary spinning wheels and cards and calls a number of women and girls to her aid, giving the food for the day in return and some of the ready worsted as an extra gift.

In the cases just mentioned, the group co-operates for the benefit of an individual islander. We are concerned with a form of assistance rather than with actual co-operation. Still more important, and much more significant in the social life of the islanders, is that form of co-operation wherein the participants share not only the labour but even the interest. Whatever work the Tristan islanders do, they like to do it in gangs. Especially if the work is done away from The Houses, whether it is fishing, hunting, fetching wood, or whatever it may be, the islanders regularly go at least 2—4 in company, and there are certain special kinds of work which are always performed in common by comparatively large parties comprising from ten to twenty members. This applies especially to certain works of a distinctly seasonal nature, such as gathering eggs, or picking apples or berries. Thus, for instance, when going for apples in Stony Beach or Sandy Point, the islanders usually go two or three long boats in company. Also when they make an excursion to one of the other islands, especially on the large hunting expeditions to Nightingale — in September—October and in November for eggs, and in March or April "for fat" — "all the island" mostly go at the same time with all their long boats.

These co-operative groups are only of a transient nature. They are always established for the performance of a very definite piece of work, and are dissolved as soon as the work has been finished. But the solidarity of such a group is remarkably strong. Actually, as long as the group is in existence there is a total economic co-operation of its members. Whatever is produced through the activity of the group or any of its individual members, is considered the joint property of the group, and is afterwards divided equally among the members. This applies not only to such articles as anybody may catch or gather freely, like fish, seabirds and their eggs, berries, etc. The same practice is sometimes even used in the apple harvest, though most apple trees are privately owned. And it is not only the result of the projected work that is treated in this way. It is the rule that driftwood belongs to the finder. But such is the solidarity of a co-operative group that if the driftwood is found during the performance of a co-operative work, *e. g.* during an excursion to the other side of the island, it belongs to the group even if the aim of the excursion is quite another than the search for driftwood, and even if the finder is alone at the moment he finds it.

This solidarity, however, is seldom extended to a larger group than one or two boat's crews. On the large excursions, such as the hunting expeditions to Nightingale, the individual boat's crews mostly operate independently of each other, even if they keep company on the journey and, otherwise, share the leisure part of the social life usually connected with such an excursion.

Co-operative groups of a more enduring character are also found, namely in the groups of joint owners of boats and cattle. It is self-evident that these groups also co-operate in the handling and keeping of the boats and in the herding of the cattle owned by the group, though, as we have seen, each individual owner may, within certain limits, dispose of the joint property of the group in a rather individualistic way.

Co-operation on a larger scale is sometimes established: Whenever a number of islanders are interested in the performance of a work which can easily be done by one or a few men, they take turns at doing it. We have already mentioned that the islanders take turns at turning in the sheep in the evening. In like manner the owners of cattle "round the beaches" take turns at marking and cutting the calves of the whole flock. Thus there is actually a permanent co-operation of all the cattle-owners on each of the three ranches Seal Bay, Stony Beach, and Sandy Point.

The co-operative groups, both the transient ones and the more permanent ones, are composed in an almost haphazard way, but mostly of people who are connected beforehand by some social bond. For the greater part they are exclusively male associations. Sometimes, however, even the women take part in the men's excursions and help in the work, thus establishing a direct co-operation between the two sexes. Thus, the women regularly take part in the harvesting of apples and in the berry picking, and they always accompany the men on the large excursion to Nightingale "for fat" in March or April. However, it is only seldom that a woman may take part as an independent member of a mixed working gang. When the women take part, they mostly act only as assistants to their respective husband, betrothed, or father. It is only in the berry picking, which is mostly performed by young unmarried people of both sexes, that a woman may take part in a mixed working party as an independent representative of her house.

Purely female associations are less common. There is an obvious reason for this: According to the division of labour obtaining in Tristan da Cunha the daily work of the women is more confined to the houses, therefore it is necessarily even of a more solitary nature. Actually, the only regular co-operative group that is solely composed of women is the carding gang.

In the great majority of cases the co-operation of the Tristan islanders beyond the limits of the individual house is prescribed by environmental factors. Much work that the islanders have to do can only be performed by a number of persons in co-operation, or is much better performed by a group of workers than by one man, and as the individual house seldom has the disposal of more than one or two adult workers of each sex, co-operation as described is essential or, at least, obviously advantageous. It is evident that such heavy work as building a house of large stone blocks simply necessitates the co-operation of several hands. With regard to the co-ownership of cattle, there is also the question of economics: With the very limited consumption of meat in Tristan da Cunha, and the complete absence of any means of conserving the meat, one cow or bullock is probably more than one house is able to consume before it is spoilt, and it is evidently more than most houses can afford to kill at one time. But it is in the first place the boat and its manning that dictates co-operation beyond the individual house in Tristan da Cunha. It is characteristic that the islanders are most likely to co-operate in labour and interests vested at some distance from The Houses, where, accordingly, the use of boats is convenient or necessary. For the fishing as well as for the great hunting expeditions to the other islands a boat is indispensable. As it is impossible for one man to handle a boat, either on the beach or on the sea, co-operation is thus in the majority of cases prescribed by circumstances.

However, besides the practical advantages connected with co-operation, the Tristan islanders seem to have a strong inclination towards co-operative activities — an evidence of their strong gregariousness. Therefore, they sometimes seek companionship in their work and in their interests, even if there is no obvious advantage connected with co-operation. Potato digging, for instance, is usually done by each house separately; but sometimes two related houses may join together in the work, just for the sake of companionship. Co-operation in Tristan da Cunha, as we shall see, has also a very important social aspect apart from the merely economic interests.

Work and Recreation.

In Tristan, as we have seen, the economic security of the individual house, as well as of the community as a whole is above all dependent on the effective utilization of its aggregate working power. And with the poverty of the physical environment, and the very primitive methods and aids at their command, it is obvious that the Tristan islanders have to work hard in order to wring from Nature what is necessary for a mere subsistence. Generally, too, the Tristan islanders may be said to be hard workers. It is true that with their conservative attitude they lack initiative to start any new enterprise, and some of them are apt to put off work till another day. It is also characteristic of the islanders that they do not like to start any out-door work when it is raining. This, of course, is partly due to the fact that much of the outdoor work really requires favourable weather, partly to the want of waterproofs. When considering the heavy and frequent rainfall in Tristan it will be understood that the islanders have many "blue Mondays" amongst their working days. But when they have once started a job they stick to it and are not easily driven off by a shower of rain. When they work they usually work hard, and at an even pace which is very effective.

The daily rhythm of work and recreation is very simple, and is marked by the extreme frugality of life in Tristan da Cunha. The islanders rise at daybreak and usually have breakfast before they start work. At 12 o'clock they take dinner and a little rest until 1 o'clock. After dinner they carry on with work until 5 or 6 in the evening when they return home for supper. The everyday fare is extremely monotonous. Usually the islanders eat the same kind of food for breakfast, dinner, and supper, though there may be some variation in the way in which it is prepared. There is also very little variation of the fare from one day to the other. The only considerable variations that occur are those caused by the seasonal variations in the available food stuffs.[1]

After supper is the time when the Tristan islanders cultivate their domestic life. At this time we find each family or house sitting in the kitchen talking. May be they will receive a visit from a relation or friend and possibly serve him a cup of tea or the like. And if there is a young girl in the house, they are almost sure to have several visits of prospective suitors who just sit down among the others talking. As lamp oil is very scarce, soon after dark the eventual guests will leave, and they all go to bed.

However, the daily rhythm of work and recreation as well as the monotony of the everyday diet are often broken. During the more busy seasons, *e. g.* in the potato digging, the men often rise at 3 or 4 o'clock in the morning and immediately start for The Patches to be ready to commence work as soon as daylight breaks. Then they work on empty stomachs until about 8 when their breakfast is brought out to them by the women. Likewise, on such occasions they do not break off work to go home for dinner, but have a lighter lunch which is also brought out by the women and consumed on the working place. They do not return home till the evening, when after a wash they have their usual supper. Also when they make excursions to other parts of the island, especially if they intend to return on the same day, they frequently start early in the morning without having had any breakfast. If they go on foot they sometimes start soon after midnight and may go without tasting any food until they return in the afternoon, though occasionally they may take with them some provisions, or they may catch a molly on their way. When going by boat they do not start quite so early, not until daybreak, but even then mostly before they have had any breakfast. In this case, however, they always take provisions with them which are usually consumed on the beach just after the boat has been landed at the goal of the journey.

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[1] The food and its preparation has been more fully treated in the medical report by Henriksen and Oeding (1940). See especially p. 100—114.

However, more strenuous work is nearly always given a more festive frame, whereby the islanders even make the work itself more agreeable, on the border between work and play. In this way the islanders have developed certain very firmly established forms of social life wherein certain kinds of work are inseparably combined with certain special forms of recreation.

Generally, the islanders seem to take great pleasure in their work. Thereby it is naturally of great importance that so much prestige is attached to work. But apart from this, the islanders obviously have a strong inclination to mingle pleasure with their work. Thereby a joyful companionship during the work plays a most important part. That is probably the main reason why the islanders seek company in their work, also in cases where co-operation does not involve any obvious economic advantage. And whenever they see a chance they make a good sport out of their work, introducing a playful competition into all their actions. They have matches pulling at the oars and walking in the mountain, they compete in hunting and fishing and in carrying loads, — and when camping "round the beaches" or on the hill they have "races" whose kettle will boil first. Whenever the islanders work in gangs they try to make the best out of the situation in the way of social gratification.

Thereby even something extra in the way of food plays a most important part. As a matter of fact, the Tristan islanders understand well how to vary their fare with the limited raw materials at their command. They know and are able to make a remarkably great variety of dishes, the greater part of which are reserved for special occasions. Very interesting is the list of Tristan dishes given by Henriksen and Oeding (1940, p. 122 sq.). This list contains approximately 40 different dishes, mostly potato dishes, meat dishes, and fish dishes, and in each case it is stated for what occasions the dish is used. It appears that nearly every dish is confined to certain very definite situations in the life of the islanders, such as Christmas, Easter, birthday dinners, "working days", etc. — and every day. It also appears that comparatively few dishes are described as everyday dishes, while, on the other hand, a great many special dishes — both Christmas dishes, Sunday dishes, and others — may be used on ordinary weekdays in connection with certain special kinds of work. Even meat dishes may be used in these situations, though meat is a luxury that is not even regularly had on

Sundays. Already this fact shows the great importance attached by the Tristan islanders to these forms of social life. Actually, there is no situation of convivial work which is not given a more festive character by means of some extra food for the workers. If not otherwise, they are refreshed with a cup of tea or other hot drink.

Thus whenever the men are engaged in a co-operative work, a "spell" with a "hot drink" is an indispensable part of their routine. For instance, when a group of men is occupied in boat building their wives take turns serving a hot drink for the whole gang, by preference a cup of tea — but, of course, any hot drink will do, coffee, cocoa, "island tea", "fancy tea",[1] or any other tea substitute. If they have flour they even have a "smack" of "soft bread" on such occasions, but must just as often do without. The drink is brought to the working place and is usually served in the morning (about 10 o'clock or so). Obviously, the act is regarded as a solemn occasion, for the woman who brings the drink will always put on her best clothes. Likewise, whenever a party of men is away from The Houses on an excursion to some other part of the island, either by foot or by boat, it is the women's duty to be on the lookout for their return. And when they see them coming they are expected to go to meet them with a hot drink. And again the women put on their Sunday clothes for the occasion. When a boat party returns (even if the men have been fishing only a couple of hundred yards from the landing place) the women meet on the beach with their drinks and present a very picturesque scene in their colourful dresses — a characteristic feature of the life on the beach when a boat returns home. As soon as the boat has been landed the women step forward and serve the drink for their respective husbands or fathers who take a spell standing at the boat's gunwale, enjoying the drink before they start unloading the boat.

Potato digging, of course, is a most important event in the life of the islanders, and it is not surprising to find that this work is regularly given a more solemn and festive character through the attachment to it of special forms of recreation. In this work, as we have seen, there is a direct and intense co-operation of the entire house with all its members, and already this fact gives the whole event a gregarious stamp and makes it a first-rate social experience. And this character is stressed by the established gregarious forms of recreation connected with the work, wherein common meals and refreshments consumed on the working place, as well as an extra quality of the food, play the most important part. — A fine day has to be chosen, as the potatoes ought to be dried in the sun before they are put into bags, and on such days we may see in the early morning a caravan of ox-carts, donkeys, and people on foot moving towards The Patches, each house in a distinct group of its own, but all in the same direction and towards the same goal. Most of the men are already working in the patches — they have started before daybreak — and now the rest of the house is on the road with the ox-cart wherein the crop is going to be taken home. In the cart sits the mother or a girl with the baby on her lap and as many children as there is room for. In this work all the aggregate working power of the house is claimed, so if the children are too small to work, there is no one who can stay at home to look after the little ones. So willy nilly they must accompany the adults, and bump and shake along in the cart on a rough and stony road. The rest of the house follow on foot or on donkeys, carrying hoes, a kettle, and some milk in a pail — a group of islanders never go far from The Houses without bringing a kettle with them, and even here a hot drink is an indispensable refreshment during work. In addition, they bring provisions for the day: breakfast for those who have been working from the early morning and have not yet had their first meal, and a ready made lunch for the whole group.

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[1] "Fancy tea" (or "Fannie's tea") just consists of boiled water and milk, sometimes only a teaspoonful of milk to a cup of water.

When the party arrive at the working place, the first thing to be done is to lit a fire and put over the kettle, and while the early workers have their breakfast they all enjoy a hot drink before they start work. Now the baby is put to sleep in the cart (or under it where there is a pleasant shade), and the work is begun. Potatoes are dug and spread in the sun to dry. Then they are sorted, measured, and put in bags. After a couple of hours' work the fire is freshened, the kettle is put on, and again the gang has a communal spell and a drink. Then they carry on with their work till noon when they have their lunch. This is obviously the climax of the day. The Tristan islanders always enjoy camping in the open, and they very much appreciate a change in the monotony of the daily fare. Therefore, any islander who can afford it will kill a sheep for the occasion, and meat hash is a very popular dish for such occasions.

After a good rest the work goes on again till late in the afternoon. Perhaps there has been another spell with a hot drink. As the day wears on the housewife or the eldest daughter will return home to prepare the supper, and towards sunset the caravan of ox-carts is again on the move homeward, with the carts laden with potato bags, and men, women, and children dirty and tired after a long day's trying work.

The ceremonial character that is given to any co-operative work is still more conspicuous when a man is "having a working day". Here it is the employer's duty to provide the food for the whole gang of workers. He is their host, they are his guests, and much of his credit and prestige depends on the quality of the entertainment he offers them. If he is a man of good standing and attaches some weight to being reckoned mong "those who work", he will kill a sheep or two, or he may — provided it is "molly time" — make an excursion on the hill and fetch home a number of young mollies. He knows that his guests will expect three good meals, and on such an occasion meat is an indispensability.

Breakfast and lunch are served on the working place, for as usual on busy days, the men have started before daybreak without having had any breakfast. The ready made hot food is brought out by the employer's wife, possibly assisted by a couple of young girls who all have their Sunday clothes on, and, of course, a hot drink is always taken between the meals. When the day's work is done the men return to their respective houses to get a good wash and change their clothes. Then they meet in the employer's house for supper. This is the meal of the day and should preferably consist of two courses. First there is served a meat dish — for instance stuffed meat (mutton, beef, or mollies). Then they get a kind of desert: if there is flour in the house there will be bread, "soft bread" as the islanders say — it has mostly the form of rolls which are eaten dry, without butter. Otherwise, potato pudding will also do (a very popular dish among the men), or some kind of pie with grated potatoes instead of flour. But the great thing is the social satisfaction involved by the fact of being together and having a common meal. "It will be quite a social gathering", as Mrs. Rogers describes it, "They will sit long over the meal and 'spin yarns', and perhaps someone will sing or play a bit on the accordion. To-morrow the 'hands' will tell what a good time Henry gave them" (1928, p. 159).

Probably the most important source of recreation for the Tristan islanders are the excursions they make "round the beaches". — It is a matter of course that the islanders quite often make excursions to other parts of the island. Especially Seal Bay, Stony Beach, and Sandy Point are places that are frequently visited. Cattle and sheep are kept there, and they must be looked after: the calves must be marked and cut, bigger calves and cows must be transferred from the one pasturage to the other or taken home for training, and every now and then the owners want to kill a "thing" for food. Comparatively large orchards are found both in Sandy Point and in Stony Beach, and though the trees are never cut or taken care of in any way the apples must be picked in any case. Besides, in Seal Bay and in Cave Gulch near Stony Beach there are great quantities of "island berries" to be picked, and some of the largest penguin rookeries on the island are found in Stony Beach and at East End near Sandy Point.

It is especially these three places that are thought of when the Tristan islanders talk about going "round the beaches". But the phrase is something more than a mere topographical designation. "Round the beaches!" The mere words recall the memory of pleasant trips by boat or by foot, with an agreeable mixture of work and play, with joking and banter, and songs and yarns round the fire till long after dark, then sleeping together in caves or primitive huts. On these trips the islanders have a good opportunity to follow their inclination to mingle play and pleasure with their work. Frequently women take part in the excursions, sometimes to assist the men in their work, sometimes just to have a holiday trip and a change from the daily routine. They mostly even put on fine clothes for the occasion. Although they never go "round the beaches" without an errand of some kind, it is as if the work itself gets a festive stamp of the holiday spirit that prevail on these excursions. If going by boat, the party may be delayed for many days in expectation of a favourable wind to return home, and several days may pass with nothing else to do than enjoy the pleasurable aspects of life.

And what does not life offer of agreeable things when they are "round the beaches"! There is not only a social but even a material satisfaction. For also here something extra in the material entertainment is an indispensable demand. When going in parties the islanders mostly take travelling provisions with them for their breakfast. On the more important routes there seem to be fixed resting places where the travellers have their refreshments. Thus, for instance, when going by foot along the beach to Seal Bay or Stony Beach, there is a resting place at Anchorstock, where the travellers regularly enjoy a cup of tea after having forced The Bluff by climbing up to a height of more than 300 m and down again on the other side. Here are found some merely provisionally constructed fireplaces which are each time barely sufficiently restored. And having arrived in Gipsys Gulch, from whence they can nearly see the goal of the journey about a kilometer away, they sit down and have their breakfast. This is usually of a special quality suitable for the situation — ordinary fish and boiled potatoes will not do here! If the journey is made by boat the travellers mostly sit down and have their breakfast on the beach just after the boats have been landed, usually only a couple of hundred yards form the hut or the cave where they are going to have their station. And when the provisions are gone — they never take provisions for more than this one meal (except, perhaps, a bag of potatoes) — there are always lots of tasty things to refresh the inner man. These trips are mostly taken in the summer months, in every respect the most agreeable season of the year. There will be young mollies, and if there are none old ones may also do, though they have no fat on them, and their flesh is rather tough. There are berries and apples; the apples, it is true, are not ripe until March, but if they are too green they may be baked in the fire or beaten with a stick to make them soft. In Seal Bay there are quantities of milk, and any party of islanders being "round Seal Bay" never fail to make use of their acknowledged right to take all the milk that may be had and make their tea with milk (instead of water), this being considered a particular dainty. On the large excursions to Stony Beach they may kill one of the wild cattle that are kept there — provided one of the owners takes part in the excursion — and live on beef only as long as they stay there, sometimes for several days. The cattle owners take turns in providing beef for the whole party.

Besides, when "round the beaches" the islanders have a hot drink whenever they feel like it. The first thing they do when they rise in the morning is to make a cup of tea, and it is the last thing they do before they go to sleep. One day a party was hunting cattle in Stony Beach, and when the first cow had been downed they then and there had a cup of tea. And when a party returns from such an excursion there is the usual scene on Little Beach with well-dressed women meeting with a hot drink.

The greatest and most important excursion in every respect is the large excursion "over there", *i. e.* to Nightingale, in March or April. This is the time when they "go for fat": it is the season for young mollies. This excursion is always made by "the whole island" in company, four or five long boats and possibly a life-boat with 14—16 "hands" in each boat. About half the partakers may be women, each boat-owner usually taking his wife or sweetheart with him as his assistant. On such a gregarious excursion it is well understood that the islanders have an exceptional opportunity to mingle play and pleasure with their work. Although in the work the individual boat's crews mostly operate separately and independently of each other, they all naturally share in the more agreeable leisure part of the social life. Actually, the islanders — especially the women — take this excursion more as a holiday trip. The work itself — gathering the birds, trying out the fat, and salting down the meat — may be done in two or three days, and after that there is nothing else to do but to wait — maybe a week or a fortnight — for a favourable wind to return home.

Nevertheless, the climax of the trip is obviously the return journey. Preparations have been made long before the party left home. Especially the women have been busy with their wardrobes. At best a brand new dress should be made, but in need a few old garments may be sewn round and altered. And when on the home journey the boats approach home, they produce from their bags marvels of new dresses, the one more colourful than the other, and put them on (it is to be hoped that they are not too sea-sick to perform this very important change of dress!). Sometimes also the men put on their best clothes, preferably with white trousers.

At the settlement they have been eagerly looking for the boats every day, especially when the wind was such that their return could be expected. It is something like a matter of prestige to be the first to announce the coming of the boats, and when they are observed the report runs over the settlement like wildfire: "They's comin'!", and great excitement possesses the whole village. The women make haste to put the kettle over the fire, and while the water is boiling they put on their best clothes. Then they proceed down to Little Beach to meet the comers with a hot drink. Afterwards there is a grand supper in each house, with meat and all the luxuries that the house can produce.

A very agreeable change in the daily routine of the Tristan islanders is the arrival of a ship. Of course, the event is of the greatest importance to the islanders as it excites the hope of new supplies of many necessities which can only be procured from the outside world, and especially the arrival of "The Big Mail", *i. e.* of the man-of-war or other ship which is sent out under Government authority and which brings the bulk of stores, parcels, and letters sent to the island, is looked forward to with great expectations. But apart from its economic importance the event has also a social aspect. Of some social importance is already the fact that this event always provokes a transient co-operation of the whole island. Besides, it always creates an intensified sense of solidarity of the whole community, joining the entire population in a common experience of joy and excitement, like a grand popular fete.

Accordingly, the reception of "The Big Mail" is prepared a long time beforehand. It usually arrives in February, and when the time draws near the houses are scrubbed all over and made "shipable", letters are written and parcels made ready, and also in some houses certain luxuries such as tea and flour are kept in reserve for the entertainment of eventual visitors.

Actually, the Tristan islanders seem to be on a constant look-out for a ship, and, apparently, their sharp eyes are specially trained to discover the smallest dark point on the horizon. We noticed that when a ship approached the island they always, in some mysterious way, discovered its tiny masts on the horizon with their naked eye, long before we were able to see anything at all through a pair of glasses. And when a ship is sighted it always provokes the greatest excitement in the little colony. As soon as it is ascertained that it is really a ship the Union Jack is hoisted on the flagstaff at Little Beach Point, and the cry "Sail-oh!" is heard all over the settlement, is transmitted from house to house, and is conveyed right out to The Patches by swift messengers sent out from The Houses. And no matter what the occupation of the individual islander may be at the moment this cry is heard, he will drop it there and then and run home — it is said, with some exaggeration, that this is the only occasion when a Tristan islander is seen running — to fetch his "trade bag" and fill it with all sorts of curios that he hopes to sell on board the ship. Then he will make for the beach and help get the boats ready. Those who are working in the potato patches will hurry home at full gallop on their donkeys, and sometimes just reach the beach in time to jump into one of the boats at the moment it is launched. Boys will climb the roofs of the houses to watch the movements of the ship, and women will be busy finishing their letters and catching geese and hens to be bartered on board the ship — these are just dumped into the bottom of the boats with their feet tied up. Even the dogs are infected by the general excitement and bark furiously.

If it is "The Big Mail" that is sighted — and the islanders have a remarkable training in judging the character of a ship from its size and shape, its speed and course at the moment it was sighted, and its colours — boys are immediately ordered after the bullocks, and as soon as the ship has dropped anchors the landing of the mail and stores is begun. On such occasions the islanders work harder than ever, and they stick to the job until it is finished. If necessary, they work all day without breaking off for dinner, and in that case a dish of some extra quality is brought down to the beach by their wives for lunch.

But when the work is done and all the stores have been landed they take a holiday. As long as a ship remains near the island — and especially "The Big Mail" may stay for two or three days as a medical and dental examination of the population is usually included in the programme — the islanders let their ordinary work lie at rest, put on their best clothes, and feel happy. Sometimes, if the ship remains over night, there is a dance in the "school-house" at night, to which any visitor on shore is invited. And the islanders will not resume their daily routine till the day after the ship has left.

Holidays and Festivals.

The major rhythm of work and recreation in Tristan da Cunha is prescribed by the ecclesiastical feasts.

Sunday is a general day of rest and is passed in a most conventional way according to a very fixed programme. The missionary usually has an early service at 7 o'clock, after which people go home for their breakfast. Then there is again a service at 10 o'clock. These services are generally well attended, and those who do not go to church usually remain home, so there are not many people to be seen in the village at that time. After the main service the women go home to prepare dinner, while the men pass the time by standing at the eastern gable wall of the church talking. This is the rudimentary "council" of the island to which we referred above. After dinner the village again seems almost deserted for some time. A few young couples may be seen walking side by side, but they soon disappear at The Bank, where the grassy slope is suddenly cut off and falls on to the beach in precipitous cliffs — here they have their sheltered places. Others take easy walks out to Hottentot Gulch or to Pigbite. But the greater part of the islanders at this time have a good sleep for a couple of hours, before they get ready for the afternoon service which is at 4 o'clock in the afternoon. Also this service is generally well attended. Otherwise, the afternoon is the time for walking, and especially after service we may meet them anywhere in the village and on the grassy plain east of Hottentot Gulch which is their home world, married people and loving couples walking very sedately side by side. This is also the time when the islanders pay visits to each other and have pleasant chats over the garden wall.

I seldom saw a Tristan islander work on a Sunday. On that day they let all their ordinary work lie at rest. However, small extraordinary jobs may be done. Thus, one Sunday a group of islanders came to our house and asked for some paint for their dinghy: they had been to Sandy Point for penguin oil the day before, but on the return home had to perform an emergency landing near Big Point on account of a strong adverse wind, whereby they had had to cut a large hole in the canvas to let out the water. And now they were going to repair the boat and take her home. Likewise, the islanders frequently use the week-end for their excursions "round the beaches", starting on Saturday and returning Sunday evening or Monday.

The fact is, that when the Tristan islanders desist working on a Sunday, it is not so much for religious reasons as because Sunday is their free day, when they put on fine clothes and enjoy the more pleasant aspects of life. Fine clothes, as we have seen, play a most important part in the social life of the islanders, and on Sundays rather strict demands are made on the dressing of men as well as of women. Likewise, certain demands are even made as to the Sunday fare. It is true that meat is a luxury that is only occasionally had on Sundays, but a more elaborate potato dish or something else is an indispensability. Potato pudding, for instance, is a very popular Sunday dish.

The two ecclesiastical feasts which determine the yearly rhythm of work and recreation in Tristan da Cunha are Christmas and Easter.

Christmas is naturally the greatest feast of the year, and as it is in the middle of the summer it is very convenient to take a good holiday in connection with it. At this time the Tristan islanders more or less rest from their work for a week or even a fortnight. In any case, they take it more easy and do not work as hard as usual.

But first the feast must be prepared, and for the last few weeks before Christmas men and women are busy getting everything ready. Especially the women have a great deal to do. In the first place there is much sewing to be done, since for Christmas, most of all, pretty clothes play a most important rôle. The islanders have their special "Christmas clothes" which are carefully put aside in a chest after use, and only taken out on certain very special occasions, among which Christmas is the most important. It is the best thing if a brand-new dress can be made, or, at least, a new skirt or a blouse — this is in the minds of the young women already in February, when "The Big Mail" is expected and they are anxious whether the mail will bring them a piece of print so they can get a new dress for next Christmas! Otherwise, the Christmas clothes must be looked after, in any case, and slight alterations be made if possible. The five sewing machines of the island are busy all day till long after dark. But no one must see the new dress beforehand, nobody is taken into the secret except, perhaps, the best friend. But there are lots of other things that must be done, for instance baking. Flour, of course, is a great luxury in Tristan da Cunha, but the islanders gladly renounce this indulgence throughout the year in order to save a few grains for Christmas from which they can bake a few rolls, or "cakes" as they call them. Last but not least the houses should be washed and scrubbed all over. So it is understood that the Tristan housewife is just as busy before Christmas as her European sister.

As long as this in-door business is going on the men are mostly turned out of the houses and are nowhere at rest all day long except for their meals. But even they have a lot of work to do. They must provide for fire-wood for a week at least, perhaps a fortnight, and they must see about food for all that time. For one thing, potatoes must be dug up. New potatoes are one of the luxuries that Christmas brings, and the Tristan islanders very much enjoy this change. For now they have been eating old potatoes so long — if they have still any left: most probably they have run short of potatoes and have lived only on fish for a couple of months. Thus Christmas is for the islanders an introduction to the pleasant "potato season": it is really a new start of a new year. Besides, each house-father will kill a sheep or two, and if he has no sheep to be killed he will make an excursion to Stony Beach or somewhere else and kill a bullock. No Tristan islander will let Christmas pass without a plentiful supply of meat. Young people go in parties to Pigbite or Seal Bay to gather the first crop of "island berries" — even in this respect Christmas is the introduction to the summer season with all its blessings. The berries are not quite ripe yet, but berry pie is an indispensability at Christmas.

Christmas day is a very solemn day. Early in the morning the islanders appear in their best clothes, the women in their new colourful dresses, with broad, brightly coloured silk ribbons round their waists, and brooches and large necklaces, and the men well shaved and with their hair brushed down wet, in their very best suits, most of them in white trousers, some even in all white, with shining black shoes, and collar and tie. They are very careful and seem a little stiff and awkward in their freshly laundered clothes as they wander about. Even the children are rather solemn in their fine clothes, the little girls in their light summer gowns with lace and other finery, white "cappies" with silk ribbons, and some of them even with pretty top-knots, and the boys no less fine in collar and tie and well pressed suits, or in pea-jackets, and always with caps.

The service at 10 is attended by the whole island. Even the Roman Catholics meet, though regularly they have their own separate service. And the church is crowded with old and young.

Festive meals, as will be understood, play a most important part in the Christmas festival, and the islanders attach much importance not only to the quality of the food. Also otherwise they like to give their meals a festive stamp. Usually they join fortunes by two and two houses and have their meals together, starting with the Christmas dinner and going on sometimes till a week after New-Year, with meat, new potatoes, and berries every day. The two families then spend all the afternoon and evening together. Mostly, however, the food is prepared by each family separately and then brought over to the other house in a ready-made state. About noon, and again in the afternoon, young women are seen passing in all directions with hot saucepans of stuffed mutton or whatever it may be — stuffed mutton seems to be the most popular Christmas dish.

The only form of public entertainment known to the islanders is a dance for "all the island" in the "school-house" and it will easily be understood that this form of entertainment plays a most prominent part in the social life of the islanders. A public dance is of the essence of any great feast. On the child's 1st birthday the parents give a dance. Likewise on its 21st birthday. It is usual to give a dance on one's 50th birthday, and during our stay Chief also celebrated his 36th birthday with a dance. Besides, there is a public dance whenever there is an occasion. If a ship remains over night there is a dance. We had a dance on Shrove Tuesday, and a few days before our departure there was a big farewell dance. When a new house has been finished it is made the scene of a more exclusive feast for the partakers in the work with dance and songs "for good luck" (Rogers, 1928, p. 47). Otherwise, the islanders arrange small private dances in their houses whenever they feel like it.

At Christmas time public dances form an essential part of the festival. There is always a dance the day after Christmas day — if it is not a Sunday. And on the days intervening between Christmas and New-Year the islanders are likely to have a dance almost every night. Also New-Year's day is celebrated with a dance.

These dancing parties are significant of much to the Tristan islanders, and obviously give them great social satisfaction. A public dance is attended by every soul on the island — even here the young mothers take their babies with them: if they cry they are given the breast in the dancing hall (but in a very discreet manner!). It is in every respect a wholly social gathering. Here is no distinction of "those who work" and "those who don't work", no exclusivity of the former against the latter, and no cliquism. Here they are all equal, from the most contemptible lazy bones to the highly respected Repetto's, all differences are evened, all antagonism is smoothed, all bitterness fades away. Here they are really like one big family.

A public dance usually begins just after the islanders have had their supper, and is announced by a ringing of the church bell. After an extra wash at the watering the islanders move slowly towards the "school-house", a long one-roomed building which is situated in the middle of the village, just at the back of the church. Of course, they are in their best clothes. Usually they come by families. However, a young man who is courting a girl will come to her house and "take her to the dance". It seems to be an immutable custom that the women immediately proceed into the hall and take their seats on the benches along the two main walls, while the men stop outside the door smoking and talking. They are waiting for Alfred Green with his "cordion". Alfred Green is reputedly the best accordion player on the island, and it seems to be his privilege to start the dance. But it would be a breach of good tone if he hurried to the dance as if he were anxious to play the rôle of first musician. Therefore he always comes rather late, usually half an hour or more after the bell has gone. But when at last he arrives, with his accordion nicely wrapped in a shining white piece of cloth, he and the other men immediately enter the dancing hall, and the dance begins.

As the dance proceeds also other musicians are given a chance. Andrew Swain is a kind of fiddler-in-chief to the island. He is still more modest than his colleague on the accordion, for he never brings his fiddle with him to the dance — but he readily sends for it on request. The islanders preferably dance to accordion or fiddle. They have a number of queer old dances, most of them originating from the days of the sailing vessels. In more recent years, however, music has occasionally been obtained from a gramophone, to which the islanders dance a peculiar local variety of foxtrot which they claim to have learned from the officers and crew of H. M. S. *Carlisle* who visited the island in February 1937.

In view of the conventional disposition of the Tristan islanders, it is evident that such a dance cannot go without a series of prescribed forms that have to be observed. Firstly, the dance is always opened by the one who gives the dance: he will "get up" first with his wife, but is immediately followed by the others who, even they, "get up" their respective wives and sweethearts in the first dance. If there is no host for the dance (*e. g.* a Christmas dance) there is no rule as to who shall open it. But even then the islanders always dance the first dance with their respective wives and sweethearts. It is considered very bad form if someone should venture to "get up" somebody else in this dance. In the intervals between the dances the women sit down on the benches along the walls while the men mostly remain standing on the floor talking. Very seldom men and women mix in the pauses. There is a rather discreet manner of taking a partner: If you seek a partner for the next dance, you must not show any interest in her as long as the music is silent. You only move, as though casually, towards the place where she is sitting. When the music starts again, you must approach her without haste, almost carelessly, seize her by the wrist without looking at her and, without a word, drag her gently into the dance. Or you touch her arm and stand awaiting, discreetly looking in another direction, while the woman, slowly and just as carelessly, rises from her seat. But when the music stops she is quick enough, and like a shot is back to her seat. Also the dance itself has a somewhat conventional air about it. The islanders dance in great earnest. The partners very seldom talk to each other during the dance, and there is hardly a smile to be seen on anybody's face. They dance with dull and inexpressive faces. But their dance does not on that account lack intensity. Usually it is fresh and dashing. It is as if the islanders are bound up in the dance and have no eyes or ears for anything else.

As the dance proceeds, however, the tone becomes freer and may sometimes get rather wanton. At some time in the evening there is a long pause, wherein a cup of tea is served and if possible some dry cakes or biscuits. The tea is provided by the one who gives the dance, otherwise it is procured from the storehouse. After the tea, or whenever they take a spell in the dance, one or another of the islanders may sing an old sailor's song — it is in the first place incumbent on the host to procure also this kind of entertainment, but also others may perform. All present join in the chorus. Sometimes there may even be a display of some special dance by particularly clever dancers.

According to the islanders' own statements such a public dance mostly continues all night till early in the morning. We did not experience anything like that, for the missionary always broke off the dance at 10 o'clock.

On one occasion, however, we spent a whole night together with the islanders feasting. This was on New-Year's Eve. On this night the islanders perform a custom which is obviously of European origin and which is known in some form or other in every European country. They are Christmas "Guisers" or "Mummers". The men dress up in women's clothes with hats decked with flowers from the gardens, others in disgusting old rags which they borrow from each other. Sometimes they even blacken their faces with soot, put on a cow's tail and, on the whole, try to make themselves as unrecognizable as possible. Then they go round from house to house, amid a mad noise from shrill whistles, empty tins, and a drum made of a piece of sheepskin over an empty barrel. Outside each house a few shots are fired from a handgun. All the houses are visited in turn, and in each there are refreshments with potato pudding and possibly with a hot drink and bread. Usually the host also sings a song to his guests, and in some houses there is a dance or two before the party leave and make for the next house amidst the same wild noise. It usually takes all night to get through all the houses, and it is full day-light when the islanders at last retire to their beds.

After New-Year the Christmas celebrations are gradually given up. Most of the islanders will continue their festive meals for another week, but work calls, and even at this time there is much important work to be done. The potato digging is upon them: The potato huts must be made ready to receive the new crop, new bins must be made, and most huts need a new roofing. However, it is a pleasant time that now draws near. It is summer time, which to the islanders first of all means "fat times", devoid of all the anxiety for daily bread of a long winter season. There are pleasant trips on the hill and "round the beaches", soon there is the arrival of "The Big Mail", and after that it is not long before the islanders go on their grand excursion "over there" for fat. So time is short until Easter.

Easter is the second great feast of the year and brings another holiday to the Tristan islanders. It is not so important as the Christmas holiday, and does not last so long. Otherwise it is celebrated in much the same manner, with festive meals of mutton or beef, fine clothes — also here the "Christmas clothes" are used —, and a public dance or two.

Besides these yearly feasts there are certain milestones in the life of the individual which are celebrated in a more or less public way.

Birthdays play a most important part in the social life of the Tristan islanders. A birthday is always remembered and celebrated in some way. Visits are paid to the hero of the day by "relations" and friends who come to wish "many happy returns of the day", and birthday presents are brought in certain cases. Besides, it seems to be a custom for the hero of the day to pay a visit to the missionary with a gift "for my birthday". The missionary is then expected to produce a return gift from his storehouse. During our stay on the island we were also made the object of the same kind of attention, and for the last couple of months we had almost every night one or more visits from people who came down to our house bringing their tributes on the occasion of their birthdays. It is also significant of the importance attached to birthdays that every one seems to know the birthday of everybody else in the community.

However, it is only the 1st, the 21st, and the 50th birthdays that are celebrated in a more solemn way. The feast is well prepared. The house is washed and scrubbed as for Christmas, and clothes are looked after and brushed up. There is a dinner for "relations" at 12 o'clock, given in the house of the hero of the day. This should be of a particularly sumptuous kind. The number of guests may comprise up to 30 persons, and not seldom as many as 3 sheep are killed on the same occasion. The meat is procured from the housefather's stock alone, but the guests contribute potatoes and milk (they "put their cows in"). The dinner is served in the "front room" of the cottage, which is only used for special occasions. The guests, of course, as well as the hosts appear in their very best clothes. At such big dinners it seems to be the rule that the men and the older women are served first, while the younger women, who assist in the cooking and serving of the food, have their dinner afterwards. The children do not take part in the dinner but are mostly entertained in another house. As soon as the meal is finished the guests leave, and then there is usually a dance "for the whole island" in the school-house at night.

A dinner for "relations" and a dance for "all the island" at night is also the customary form at a wedding. As in the case of a 1st or a 21st birthday the dinner is provided by the parents, but here the claims to a sumptuous dinner are even greater than for any birthday. Besides, a wedding, of course, is a most important public affair wherein the whole island is concerned. Nearly all the inhabitants of the island attend the Service so that on such occasions the church is more crowded than ever. And the event always gives occasion to much jesting and merriment, wherein practically the whole population takes part. When the couple leave the church old shoes are "fired" after them "for good luck", and it is considered good sport to play small tricks on the young couple. Thus it is regarded as a good joke to steal away the food from their house, for, as the islanders say, "the young man should have enough with his girl". — And here, more than ever, the climax of the day is the dance for all the island at night.

8. Sexual Life.

In accordance with the islanders' devoted attitude towards the Christian Church and its moral codes (see below), as well as with the pattern of last century Europe, in Tristan da Cunha there are very definite social codes regulating the sexual life of the islanders. According to these codes, in the first place, sexual intercourse is strictly limited to married couples. So even in Tristan da Cunha, as in all societies with a conjugal family organization, marriage has a double function: (1) to provide a regular and durable sexual and economic relationship between husband and wife, to the exclusion of all other attachments and, thereby, (2) to secure the necessary stability of the family organization and the perpetuation of the individual family. Marriage may, in theory, be contracted as soon as sexual maturity has been reached. However, there is a slight disinclination for too early marriage, and it is commonly recognized as a father's right to forbid his son or daughter to marry before the age of 21. This disinclination for early marriage has, in part, a bearing upon economics: it is considered necessary that a young man who wants to contract marriage should have acquired a certain economic standing. This, however, may be a rationalization of a mere social prejudice. However this may be, the average age for marriage, as we have seen, is perhaps a little higher than might be expected in a community with so simple and primitive economic conditions as this, being 25 for men and almost 24 for women for the last 40 years.

As in our society, therefore, several years may pass between sexual maturity and marriage, during which time the young people are expected to remain "innocent". Moreover, as in our own society, the demand for sexual abstinence is more pressing with girls than with boys. However, — and even here the Tristan community coincides with European patterns — a more innocent form of sexual intercourse is allowed, and is socially recognized, even for young unmarried people. This is the "courting" which, indeed, covers all but actual coitus. This interim period of "courting" functions, in a way, as a preparation for marriage and gives the young people an opportunity to gather some sexual experience and to make a careful choice of future spouses. It is focussed on marriage, and in Tristan da Cunha this is more evident, perhaps, than in our modern society. "Courting" very quickly and directly leads to an official engagement.

Courting in Tristan da Cunha has, indeed, a very modest start. The only manner to initiate a courtship is for the young man to start paying visits to the girl of his choice in the evenings, when the family is gathered round the kitchen-fire, resting after the day's work. He will be there almost every evening, and — as usual when the islanders pay visits in each other's houses — he will step right in and without a word take a seat on a box or on the bunk. Mostly he will even keep his cap on. Nobody seems to pay him any attention and he is asked by nobody about his errand. He simply slides into the picture and joins in the conversation about commonplace matters. Frequently he will have a number of rivals sitting there in the same way as himself, but they are all the best of friends and talk to one another in an unaffected way as if they had only come to borrow a hoe. At this stage none of them show any special attentions to the girl. And when one of them feels inclined to leave he just rises from his seat and steps out without a word.

But, of course, everybody knows why he has come, and soon it is told in the village that "Tom is going in Fred's house", though in case Fred has several daughters there may be some confusion at first as to whom he is "going" for.

The girl herself, however, will soon be made sure about the question, for after some time the young man will, every now and then, bring her a small secret gift. May be he has been so lucky as to acquire a pretty kerchief from a sailor on a passing ship, or a little sugar or a small bag of rice. Or he may equally well make her a pair of moccasins. This, however, is a most serious matter: to make a girl a pair of moccasins is simply tantamount to a proposal.

The girl on her side is free to accept as many gifts from as many suitors as she likes, without being under an obligation to any of them. And as this introductory form of courting usually starts at a very early age — the girl may be just 15 years old when suitors start "going in" her house — several years may pass before she makes a choice. But when she has once made up her mind she is expected not to receive any gifts except from her favourite. The slighted suitors, who have their gifts returned, will then stop coming to her house in the evenings, and the favourite has the field all to himself. He will come to her house every night, and now the young couple will sit side by side courting, sometimes in a not too secret way. If the girl's parents are of a considerate kind they will soon go to bed and leave the young people to themselves, while the young lady will give specimens of her cookery by serving some savoury dish for herself and her lover. At this stage she will even show him other small attentions. First of all she will knit him a pair of socks — shining white and with four bright "marks" (or as many as she can afford) — and possibly a nice pullover. And, finally, she will ask him to bring her his clothes to wash. This on her side is a declaration, and is henceforth practised as an established arrangement as long as the two are courting.

Now the matter is already getting a somewhat official stamp. In the village it is already told in a whispering voice that Tom is courting Ellen, and it would be of no use trying to make a secret of the matter in a so transparent and novelty-hankering community as this. And now the suitor openly offers himself to help his future father-in-law in his work, an offer which the girl's father gladly receives without asking further questions. From now on, too, the courting partners are steadily seen together. He will take her with him on some of his excursions "round the beaches", whereby she will assist him in his work. When there is a dance he will come to her house and "take her to the dance". And on Sunday afternoons they will be seen walking together on the grassy slope between the houses or down to The Bank, where they will easily find a sheltered hollow, visible only from the sea, which they will immediately make their own constant courting place. It is not bon ton to show any sign of being in love in public, and the courting couple walk very sedately side by side. But from these facts it is now evident to everybody on the island that the two are definitely engaged.

Courting in Tristan da Cunha, as is seen, is circumscribed by rather strict codes, and is only allowed in certain very definite forms. There is no room for that free and easy flirtation which is characteristic of the relationship of young unmarried people in many other primitive and civilized societies, or for any — even the most innocent — form of promiscuity. Certainly, even a Tristan engagement may be dissolved: the boy may simply stop coming to the girl's house in the evenings, taking her to dances or on the usual Sunday walks, and withdraw his assistance in labour, and the girl may return his gifts as a sign that further connections are not wanted. After that both parts are free to make any new alliance. But no one can take a girl to the dance or "round the beaches" or even for a walk on a Sunday afternoon, either alone or together with others, without being recognized as "courting", *i. e.* as engaged. The courting partners are always, so to say, under the Argus-eyed vigilance of the community, and there are no exclusive assemblies or gatherings of young unmarried people of both sexes where courting could have a more free display. The only exception, perhaps, is found when young people go to Seal Bay for berries. These excursions are mostly made by young unmarried people of both sexes, and, although the etiquette never permits a courting couple to make the trip alone, on these excursions the tone seems to be more free and easy. I was informed that when going "round the beaches", if the party was a small and exclusive one, the courting couples usually slept side by side, and this is most probably the case when the party is solely composed of young unmarried men and girls — young people are generally very considerate of each other in such questions. But even then the courting is eminently monogamous. No girl of honour would ever let a boy sleep by her side or, on the whole, accept or invite his attentions without being "regularly courting".

As already mentioned, the boys, and especially the girls, are expected to be "innocent" until marriage. However, according to information that I received from an engaged person, full sexual intercourse seems to be commonly practised between courting people when opportunities are given to be alone and undisturbed. These liaisons, of course, are not socially approved, and an eventual consequence is regarded with great disapproval and puts a stigma on the woman concerned. Her social prestige, however, seems to be fully regained if the couple marry and the father admits the child as his own by letting it bear his name, although a period of 2—3 years may pass between the birth of the child and formal marriage. It belongs to the exceptions, however, that the matter goes so far as to the birth of a child before marriage is formally contracted. In many more cases the young couple will hasten to marry when it is evident that the woman is pregnant, and it is not very uncommon in Tristan da Cunha that the first child is born only 4—7 months after marriage. In some of these cases the mother claims that the child is a "7-months' child", *i. e.* premature. In one case I happened to get information about an attempt at provoking an abortion by means of hot baths. This was with a girl of 14½ years. The attempt was unsuccessful, and the couple married a few months before the child was born.

Actual promiscuity is strongly against the social codes of the island, and does not seem to occur very much — although we could obtain no reliable information in this question. However, there are a few instances of illegitimate children with unknown fathers, *i. e.* the father has not made himself known by marrying the woman and giving the child his name. In these cases even the woman will keep the secret, and, though the most wild guessings are made as to the fathership of the child, the question is settled by saying that the child "has no father". These cases are naturally regarded with much more disapproval than if the girl gets married and has her child legitimated. The loss of prestige inflicted on such a woman is most severe and will last for many years. One woman who had had two illegitimate children was denominated with the contemptuous nickname "All hands' wife". There is, however, no actual excommunication, and as time passes on even here the disapproval gradually dies out, though the woman will have to be contented with a rather subordinate standing in the community.

As to sexual intercourse of married people, I have received no reliable information. The fertility of the marriages, as stated above, is about the same as in an average rural community in Europe, or perhaps a little higher, though it seems to have diminished in the course of time. This fact is partly due to a higher frequency of abortions in later years, possibly caused by an insufficient nutrition and hard work during pregnancy (Henriksen and Oeding, 1940, p. 79). But there may also be a social factor at work. The question of over-population, as we have seen, has been raised more than once in the history of the Tristan community, and, certainly, it must be said to be the most severe problem of Tristan to-day. Many of the islanders are conscious of this, and although, as a rule, they do not look far ahead, most of them have a strong feeling of the economic difficulties that a large flock of children will arouse for themselves until the children have reached the workable age. Actually, we also got some vague hints about an increasing use in later years of a primitive form of birth-control (coitus interruptus) even within the marriage.

9. Religion.

Religion, religious conceptions, and religious attitudes usually belong to the most intimate parts of man's life. It is evident, therefore, that I cannot speak except with some reservation about the religion of a people that I only know from a short visit of less than four months, during which time I had several other things to do than to try to penetrate into the depths of their religious thoughts. For this reason my results in this field could not be but a mixture of vague impressions and factual information, enough, however, to give a sketch of the islanders' attitude towards the superhuman powers.

A strong and deep religiousness and an ingenuous devotion to the Christian Church seems to have been an outstanding trait of the Tristan character throughout the history of the little community. This is evidently a spiritual heritage from the very earliest days of the settlement, and it is the more remarkable that this trait should remain so strong, since we may presume — and partly know — that the people who settled on the island were not always too good a set in this respect. The influence of the few missionaries who, at long intervals, have served in Tristan da Cunha, is obviosly not of such a kind or strength that it alone can explain this fact, the less so as the first missionary who came to Tristan in 1851 found the islanders already then to be deeply religious and devoted Christians (Taylor, 1856, p. 49 sq.). This trait of the group character is obviously the result of the personal example of the more influential men, especially the leaders, most of whom were deeply religious. This seems to be no less true of Peter Green than of William Glass, whose devoted and pious Christianity is witnessed by both Earle and Taylor. And it is certainly true of the later leaders, Andrea and Frances Repetto. Besides, the strong religiousness of the Tristan islanders is in good harmony with the specific development and general quality of the group character in Tristan da Cunha, which, quite obviously, has promoted this special trait, while, on the other hand, devotedness to Christian ideals in many ways has determined and influenced the islanders' social life, above all their morals. Here is an obvious reciprocity of influence between the various traits of the group character, particularly between a true humanistic life attitude and the strict requirements of a dignified and considerate conduct on the one hand, and deep piety and devoted Christianity on the other.

The religion of the Tristan islanders is distinguished by a strong and confident belief in Providence. God is to them a kind and affectionate father and a reasonable and indeed very humane judge. Although they obviously have a deep sense of their moral responsibility towards God, they seem to think that he will readily forgive their small sins. They have their own confident opinion about these things and do not take the missionary's moral sermons too seriously.

In accordance with the individualistic character of their whole life attitude, the Tristan islanders have a thoroughly individualistic attitude towards religion. Their relation to God is markedly personal and individual. It is a matter that each of them likes to keep to himself and feels little impelled to communicate to others, on the principle that nobody should interfere with the religious thoughts and relations of others. They do not talk much about these things, and it is extremely difficult, therefore, to get reliable information about their religious thoughts and experiences.

Otherwise, of course, their ideas about transcendent things are very vague. They have a strong belief in supernatural signs and warnings, usually mediated through the appearance of ghosts and other visions, sometimes also through auditions. Such signs are, as a rule, warnings of an ensuing death in the family or in the community, and are always found to accord in some way or other.

Ghosts are usually seen at night, and mostly have the appearance of very big cats or dogs. They generally keep near the grave-yard, and for that reason people are afraid to go there after dark. Certain caves are also believed to be the abode of ghosts, and are shunned by some of the more superstitious islanders. But ghosts may also appear amongst the houses, or even in the houses, in the chimney or in the fire-place. They are really not dangerous and will do no harm to anybody. They just follow you, and when you cross a stream, they disappear. But if you take up a stone and throw it at them, they will come towards you.

There are also "day-ghosts" which appear in the open daylight. Their appearance is different from that of the "night-ghosts": They are like angels, with large snow-white wings and a face like that of a baby, but they have no visible arms or legs. They always appear in great numbers, and rise and rise until they disappear in the sky.

A ghost may appear to anybody, but it is said that those who are born with the caul are those who usually see ghosts. There is also a vague idea that "day-ghosts" only appear to people of a certain moral quality.

A quite interesting trait of their superstitions is their firm belief in the possible influence upon the healthy development of the embryo through the mother's actions, and especially her words, during pregnancy. One youth has feeble sight, as this is believed to be because his mother, while she was pregnant with him, used to mock a man who is almost blind on account of glaucoma. Another woman, who was pregnant with a girl, was prone to tease a man who, probably on account of his clumsiness, had acquired the nickname "Six-toe-handy". She often used to call him by that name. The result was that, when the girl was born, she proved to have six toes on one foot. The man is no longer called by the nickname "Six-toe-hand" by any of the islanders, whether this has any connection with the above occurrence or not. On this account women in pregnancy are watchful of their behaviour and take special care not to mock other persons or to call them by malicious nicknames. Here we are obviously faced with a kind of word magic. The phenomenon is also well known from all primitive religions that women in pregnancy are specially exposed to the agency of supernatural powers.

The Christianity of the Tristan islanders is of a strongly ecclesiastical character. It should be remembered that all the missionaries who have served in Tristan da Cunha have been sent out by the Society for the Propagation of the Gospel, and this society, as we know, holds very strictly to the High Church principles of the Anglican Church, and lays much stress on its Catholic character. Until recently this was the only form of Christianity that had ever had a delegate among the Tristan islanders, and the only form officially practised on the island. Moreover it is a fact that should be taken into consideration in this connection, that the greater part of the more recent immigrants were people who had grown up in the Roman Catholic faith, which is generally just as ecclesiastically minded as the Anglican Church. This is not only true of the two Italians who arrived in 1892, one of whom became a leader in the community and, being appointed Lay Reader, was even given great authority in religious matters. Also the three women who arrived in 1908 as wives of returning islanders, and their children, were Roman Catholics by faith and education.

No wonder, then, that the Church and its ceremonies should play a prominent rôle in the religious life of the Tristan islanders as it manifests itself in their behaviour and outward actions. This applies already to the church edifice. Though it took a long time and much effort before the islanders could be induced to build a church, when they first commenced the work no effort nor material were spared to make it a worthy place of worship. The established ceremonies of the church are held in great veneration by the islanders. The divine services on Sundays and other sacred days are always well attended, and on the great feasts, such as Christmas and Easter, every soul on the island, from the oldest to the youngest, will go to church and attend the service. Nobody stays at home to nurse the babies, so that even they are taken to church.

Churchgoing itself seems to be much of a ceremony with these people, and is always performed according to certain rules: When the bell has rung, the people leave their houses and start moving towards the church, but whilst the women and children immediately proceed into the church and take their seats, the men wait outside in small groups until the second bell has gone. (It will be remembered that a similar custom prevails when the people are going to a dance.) Ony Frances Repetto, who lives close to the church, stays in her house with her family until the second bell has gone. There was something invariable in these rules, and I seldom saw them broken. At last comes the minister and immediately commences the service by putting on a gramophone record as a voluntary.

Also in the church there are certain established rules for the seating of men, women, and children.

Just as the regular service of the church plays a prominent rôle in their religious life, the Tristan islanders lay much stress on the blessing of the Church by baptisms, weddings, and funerals. The minister, therefore, is a most important person who is himself the object of much veneration and awe. He is addressed with a humble "Father" and always holds a high status in the community. During the absence of any missionary on the island, the islanders like to have an appointed Lay Reader or Marriage Officer, whose task it is to "read the service" on Sundays and other occasions where this is required. At any rate, one of the more influential persons is ready to take up the task (which, in turn, considerably increases his or her social prestige).

Of course, it was quite impossible to decide whether these ceremonies released any genuine or specific religious experiences in the partakers, or what part they played at all in the religious life of the islanders. For most of them, quite possibly, they were just a series of observances of no contents, acquired through ecclesiastical indoctrination, and performed more from social motives than from a genuine religious need. It is certain, however, that the social factor, the consideration of one's social prestige, plays an important part in the church-going of the Tristan islanders. On the other hand, ceremonies and observances occasionally arranged by the missionary outside and beyond the regular service of the Church have obviously no religious significance for the islanders. Thus the present missionary sometimes used to arrange a kind of procession from The Houses starting at the church and out to The Patches, where a service was held on one of the small hills out there for the blessing of the crop. Likewise, when the people were going to Nightingale, he used to have a lamp lit in the church, and this lamp was kept burning as long as the people were away. These and similar ceremonies and observances, being beyond the regular and conventional services, apparently have no meaning whatever to the islanders, and obviously mediate no experience of religious or any other kind. Likewise the islanders mostly refuse to pay attention to any services that the missionary may arrange on working days.

It is a matter of course that Sunday is kept in accordance with the prescriptions of the Church. But again we are obviously concerned with an observance that has lost much of its religious significance. May be apart from the Divine Service in the church, the Sunday in Tristan da Cunha plays — as to many people in more civilized countries — only a social and economic rôle. Sunday is the day when the islanders rest from their work, when they put on their best clothes, take easy walks on the plain or down to The Bank, and enjoy the more comfortable aspects of life. But if anyone wishes to do a piece of work, there is no objection to it on the part of the community, and it is regarded as an unreasonable and absurd demand of the missionaries that the islanders should not go out to a ship and barter on a Sunday.

Apart from the ceremonies and observances of the Church, collective or social religious practices in the form of observances and ceremonial acts do not play a prominent part in the religious life of the Tristan islanders, which is in accordance with the individualistic and inwardly subjective character of their religion. As far as could be experienced, there are no regular established times of prayer, either for the whole community or within the individual families, no morning or evening prayer, and no grace at meals. Bible reading in the houses, and any other form of private joint devotions, do not seem to occur.

Some rudimentary forms of religious rites, it is true, are observed in connection with weddings and funerals, but have at present lost their religious significance. Thus the custom to throw shoes after the bridal couple is regularly practised by the islanders. They also know the custom of throwing rice at the couple, but this custom is seldom practised, obviously because rice is a rare luxury on the island. The original symbolic meaning of these customs, however, is not known by the islanders, just as it has been forgotten in most European societies where these ceremonies are still observed. Probably they have been taken over by the Tristan islanders from the European society just as a form of mirth without any religious meaning at all, and with the prevalent, but obviously secondary "explanation" that it "means luck".

Of a more genuine religious character is the custom that, in case of a death, the house companions of the deceased move out of the house for about a month, living during that time in the house of some relative. The foundation of this custom seems to be an idea that the house wherein a person has died is taboo for some time, a genuine religious idea whereto parallels are found in all primitive religions. However, even this custom has lost much of its religious character in Tristan da Cunha, and has now been given a secondary and more rationalistic explanation: it is said that people move out of the house because they want to escape a constant revival of the painful memory of the deceased. Accordingly, too, there are no safeguarding rites connected with the return of the house companions to the house. Besides, this custom seems to be a dying custom in Tristan da Cunha. At present it is no longer commonly observed except, perhaps, by the older people.

When reporting that the children throw their shed milk-teeth into the fire, we probably mentioned what there is in Tristan da Cunha of rudimentary religious observances or "superstitious" practices outside the Church. Even the latter practice has obviously been taken over from European society, and has never had any religious significance in Tristan. The secondary "explanation" is that if a dog eats a shed milk-tooth, the child will get a dog's tooth instead.

In this community it would not be very likely that the antagonism of various creeds or confessions should play any rôle at all, especially as this would be in conflict with the islanders' liberal humanistic life attitude. We have also heard that many Roman Catholics have settled on the island without causing any religious schism to occur — until recently. To-day, religious schism is a fact even in Tristan da Cunha, namely between the adherents of the Anglican Church, who are still in the majority, and the Roman Catholics.

This happened thus. In 1932 a passage to Tristan was granted in H. M. S. *Carlisle* to a Roman Catholic priest, who spent all the time on shore together with some of the original Roman Catholics, inducing them to segregate from the Anglican Church and return to the faith of their childhood. The result was that Agnes Rogers, the only one remaining of the three Irish women who arrived in 1908, induced her husband, the almost blind William Rogers, to be converted, and she started a Roman Catholic church in her house.

At first the whole congregation only consisted of two families, but has been increased little by little. In 1938 it numbered 15 men and women above the age of 16, besides smaller children, altogether 27 persons. The great majority of these people are original Roman Catholics and their families, but there are also a few others. "Political" motives seem to have been a co-operating cause in some cases, as some of these people have joined the Roman Catholics in order to withdraw from the somewhat secular régime of the present missionary. Until recently, the congregation used to gather in Agnes Rogers' house, where the hostess performed the service. But in 1938 they had their own church built.

However, there is no perceptible antagonism between the representatives of the two creeds. In this as in other questions the Tristan islanders respect each other's individual standpoints. On one occasion only I heard a young woman boast that her baptism was of a better kind than somebody else's. She was born in Cape Town and had been baptized into the Roman Catholic Church there. But she had not yet joined the Roman Catholic congregation in Tristan.

10. The Social Order and Its Perpetuation.

In the foregoing we have given a description of the various patterns of attitudes, behaviour, and actions that prevail in Tristan da Cunha and which together constitute the social order of the community. Only occasionally, and very sporadically, have we touched on the question how these patterns are enforced. For the more general attitudes that constitute the group character of the community we have stated that they are, in the words of Durkheim, provided wih a "power of coercion" by virtue of which they impose themselves upon the individual. And, actually, the same applies to all patterns of attitudes, behaviour, or actions valid in any community or group. But this statement does not say anything about the nature of the forces by which the social order is perpetuated.

With regard to the nature of the social order prevailing in Tristan da Cunha, even in this respect the Tristan community is a typical representative of primitive society as in this community the institutional order is only of a very rudimentary kind, covering only a few very specific situations in the social life of the islanders. In all other aspects of their social life, indeed in nearly all their attitudes, behaviour, and actions, the islanders are only ruled by a spontaneous order, developed through a slow process of adjustment and enforced without the agency of any controlling organs.

Certainly, actual laws are not unknown in Tristan da Cunha. At the very outset, as we have seen, the community was even given a kind of general constitution in the form of a formal agreement between the settlers, which regulated, in the first place, their economic life, but then even their social interrelations. And from time to time more specific rules have been agreed upon by the islanders. Thus, more recently, certain rules were established for the regulation of the hunting of mollies. These laws, however, have been of little importance in the social life of the islanders. Most of them have been quite ineffective, apparently because they did not agree with the spontaneous order of the community as revealed in the islander's actual attitudes in the matters concerned. Neither was there a central leading or judicature with will and power to enforce the rules against the inclinations of the other members of the community. Certainly, in 1821 an institutional leadership was introduced, whose most important task was even to see that everybody did his duty in accordance with the laws agreed upon. However, as we have seen, this arrangement was not able to prevent a development which meant a frustration of the approved social order in essential points, and soon even the very existence of the laws must have been forgotten. The "molly rules" already referred to were introduced at the initiative of a missionary, and as long as the missionary stayed on the island and acted as a "Magistrate" to the islanders he obviously tried to make the rules effective by means of force. Besides a "council" he had even erected a "police" among the islanders, and it was reported that he used to inflict corporal punishments (flogging) upon those who broke his rules and orders. But after the missionary had left, the rules were apparently not kept up with the same strictness, and at the time of our visit to the island they were absolutely devoid of effect, no attempt being made to enforce them. The only kind of "laws" in force in Tristan to-day are the various decrees and orders of the present missionary. But, though they are enforced by threats of drastic sanctions, even they are all but effective as the majority of the islanders neglect them and disobey them whenever they see a chance to evade the missionary's control.

Besides these actual laws, however, there are a number of customs and patterns of behaviour which have almost acquired the character of laws in that they are consciously recognized by the islanders as established rules of conduct, thus formally corresponding to the "common law" of more civilized countries. Such semi-laws are, in the first place, all those rules and patterns which are concerned with rights and obligations of individuals and groups, property rights and rights of appropriation, the structure and functions of the "family", to mention the most important of them. Some of these rules may certainly have been agreed upon at some time in the history of the community, though the very process of enactment has been forgotten. But most of them seem to have developed spontaneously. However this may be, they are of the greatest importance in the social life of the islanders, and they are certainly felt as binding, a deviation from one of these rules being regarded as an offence or even as a crime. These recognized rules, thus, do not differ much from actual laws. But it is a striking fact that in this community there are no specific and formal sanctions brought off against the violator of any rules or patterns of conduct. The most explicit crime that occurs is theft. But even a positive thief is never punished. If the stolen thing is found in his possession and identified he must bring it back to the owner. But if it has been consumed or for other reasons is not found in his possession, he is not even charged with a replacement of it.

How, then, is this order perpetuated? What are the forces that make a Tristan islander adhere to the social codes that in so many ways obstruct his personal life display and limit his much cherished individual freedom?

It has been suggested by some writers that the spontaneous submission to order so conspicuously prevauling in primitive societies has something to do with the "group mind" or "group sentiment". According to this view the adherence to the social codes is a matter of solidarity with the group (see *e. g.* Rivers 1924, p. 169). Against this view as well as against the current acceptance of a spontaneous submission to order in primitive societies a sharp criticism has been raised by Malinowski. He maintains that also in primitive societies, where an institutional order is lacking, there are certain rules which are obeyed, not on account of a spontaneous submission to custom or from a sheer group sentiment or feeling of solidarity, but "for purely social reasons". These are the "laws" of savage society. They are enforced by certain definite sanctions, the most important of which is the loss of reciprocal service (Malinowski 1932).

Here is not the place to take up to discussion the arguments of Malinowski (see Munch 1945). However, his argument frequently carries beyond its point. He is certainly right when in this connection he points out the importance of "ambition" for the perpetuation of the social order in primitive societies, which, accordingly, he recognizes — besides "reciprocity" and "systematic incidence" — as one of the "main factors in the binding machinery of primitive law" (1932, p. 68, cp. p. 28 sq.). But he has failed to recognize that ambition, *i. e.* the craving for the fellows' appreciation, has something to do with the group sentiment or the general need of solidarity, and that this is the main factor for the perpetuation of all social codes. In this connection publicity — a public display of virtues as well as a repression in public of such dispositions and inclinations that are not in accordance with the social codes — plays a most important part (Munch 1945).

In Tristan da Cunha, in accordance with the strong repression of the instinctive want of individual self-assertion, there is not much public display of virtues. Boasting, whether disguised or open, is considered very bad form in Tristan. But in this small and transparent community nothing will long remain unknown. And every islander is perfectly well aware of the fact that in all his doings and sayings he is under the Argus-eyed vigilance of the community. Any deviation from the normal or usual will quickly be known by every soul on the island, and every action or saying by an islander will be commented upon, praised or criticized. And a Tristan islander is very sensitive to the public opinion concerning his person, and reacts very strongly upon a disapproving utterance from a fellow islander, especially if it has been enounced in public. Any false accusation thus advanced will bring about the most excited tumult of mind even if it is concerned with a mere trifle in the eyes of an outsider. It may safely be said that in all his conduct and behaviour the Tristan islander is, consciously or unconsciously, guided by one principal consideration: 'What will people say?!'

And in this community the need of solidarity, the consideration of one's social prestige, and the public opinion are obviously sufficient to keep up a rather strict social order. These are the factors that make a man or woman dress in the prescribed way, these are the factors that make them behave in the prescribed manner and give expression to the prescribed attitudes in every situation, these are even the factors that make them keep to their obligations. Certainly, rules are broken, but the only kind of social sanction ever inflicted upon the breaker of a social code is a more or less severe loss of prestige, varying with the nature of the breach and the importance of the rule that has been broken.[1] We know already what such a loss of prestige implies. It means the exclusion from the more influential and "central" part of the community and a partly dissociation from its more prominent members. In other words, the loss of prestige is equal to a certain degree of excommunication, which, of course, also includes the loss of the benefit of mutual services.

It is a self-evident thing that in this primitive society there is no judicature or other formal institution for action and judgment, whereby disputes may be settled or a person who feels that he has been injured may have the injurer publicly stamped. However, a rudiment of such an institution is found in the form of public teasing. Actually, this is a frequently applied form of public accusation in Tristan da Cunha, and the only form of direct self-assertion over against a fellow socially recognized. Indeed, a sportive and humorous teasing, seemingly harmless, but often with concealed hints and sharp stings, is an art in which the islanders have developed a remarkable dexterity, and whenever they see a chance they like to perform it. Preferably, then, they choose a situation where they are sure to have a public — a working gang, a boat's crew —, and the point is, of course, to turn the laugh against the other part. As many of the islanders have a very good replication, frequently real duels take place, to an unanimous amusement for the listeners, but not always so for the duelists themselves. Sometimes they give eachother bitter pills to swallow, followed by a triumphant "Now take that pill!" But if one of them should fall out of the harmless and playful tone, should he "git a huff", as the islanders say, then he has lost the game — and with it a good deal of prestige, too. Apparently, it is taken as a proof that he has felt himself hit and that the accusations have been correct. The same, of course, is the case if one of the duelists should have got no answer ready.

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[1] We disregard here the punishments, or threats of punishment, advanced by the missionary for the effectuation of his decrees and orders.

No doubt, this joky teasing plays an important psychological rôle as a socially controlled outlet for sentiments not in accordance with the strict social codes of this community with its strong repression of the instinctive want of self-assertion. Besides, however, it has a most important "legal" function. It is a mild form of public accusation, wherein the accused person is even given an opportunity to defend himself. Although the "defence" mostly consists of attacks against the accuser's person, it may frequently throw the accusation into relief and thus break its poignancy. At the same time, the public teasing serves as a reminder of rank and prestige and prevents anybody running away from his big or small delinquencies because either part will bring forth what is likely to detract the other part's reputation, and thereby sometimes hints at events long since occurred.

The public teasing, thus, functions as a guard of the social order within the group, and in this function it is the more effective as a playful teasing which is kept within the prescribed forms will never cause an actual breach in the solidarity of the community. It is true that teasing often even serves as a reminder of differences in rank and prestige. But a playful teasing, at the same time, is always taken as a confirmation of mutual solidarity between the two parts. It always provokes an increased sense of belonging together, and the islanders, therefore, mostly find pleasure in being teased as well as in teasing — if it is not too much at the expense of honour and prestige. This was obvious from many a scene witnessed by the writer where the victim showed all signs of pleasure while sometimes rather sharp hints were hailed on him. Personally I made the experience that, when I had once discovered their small weak points, the quickest way to their confidence was to take up their practice of teasing. Another member of the Expedition was also fond of teasing and often used to tease the islanders. Once, somewhat anxious, he asked one of them if they got angry because he teased them so much. "No, Sir," was the confidently reply, "the more you tease 'em, the more they like you!"

These social functions of the teasing, as well as its psychological importance as an outlet for inimical feelings, of course, is not peculiar to the community of Tristan da Cunha. Teasing, as known, is a very common tone of conversation among friends also in our own society, and its psychological and social functions are always the same. But its significance is more conspicuous in Tristan because it is the only socially approved form of direct self-assertion over against another person, and the only equivalent of a formal judicature in more developed and civilized societies.[1]

The extended use of nick-names in Tristan da Cunha has a similar social function as the teasing, with which it is even psychologically closely related. Nearly every person on the island has a nick-name, and many of these alude to an event in the past where the person concerned has disgraced himself by offending against some more or less important social code. Others pick out a characteristic habit with the person, or a typical character trait. And most of them are of such a kind that they immediately put the person in his right place.

I never heard any of the men calumniate an associate person behind his back. If they had something to say about somebody, they always said it openly, mostly in the form of public teasing. A more malicious slander only occurred among the women, especially "at the watering" or "in the carding gang", the most important places of womanly gossip. But this gossip is not socially acknowledged, only partly approved by the female group because the women find amusement in it, whereas it is completely disowned by the men. It is fully realized that this is a more dangerous form of accusing a person as in this case the victim is mostly not present and is thus given no opportunity to defend herself. To "bring a yarn to the carding gang", therefore, *i. e.* to convey a false accusation, is a most serious offence in the eyes of the islanders.

It is evident that a judicial system like this, based as it is exclusively on the solidarity of the members of the group, supposes very primitive and simple social conditions. In a complex society there are so many competitive groups and loyalties that the consistency of the social order would be severely endangered if resting exclusively on this base. Besides, in every community there are peripheric elements, persons with a low prestige and a corresponding weak group sentiment. And these persons are naturally much less checked by the consideration of their social prestige than a person who holds a high rank in his community, likewise as their spontaneous impulse to assume conformity with the group is weaker. These persons are more likely to break a social code because a further loss of prestige is of less importance to them. These are the reasons why a complex society must even guard its laws by the enactment of specific sanctions, although most laws are obeyed by most people in a spontaneous way under the pressure of the fellows' approving or disapproving reactions.

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[1] A more organized parallel to this phenomenon is found in the famous song contests of the Eskimos, which have been described by many writers. See especially Rink, 1871, p. 179, Rasmussen, 1929, p. 231 sq. We may also refer to the socalled yakala of the Melanesians described by Malinowski, 1932, p. 60.

Such peripheric elements, as we have seen, are found also in Tristan. Even here there are differences in prestige and rank. So it cannot surprise when in Tristan da Cunha we find a slight nuance in the moral claims made to, and recognized by, people of higher and lower ranks. We have already seen that there are some people who feel themselves less tied by some of the claims of the group character, who lack self-respect and are more careless than others about the apparance both of their persons and of their houses, who are subservient towards the missionary and other foreigners and neglect their duties towards their own houses in point of work. Still more significant is the difference that may be observed in the respect for another's property shown by people belonging to different social layers. Apple trees, as mentioned, are privately owned by those who have planted them, and this proprietorship is thoroughly respected by the upper class of "those who work". But people of a lower rank are not so particular as to ownership in this case. Over against a close, and more prosperous, relative they regard it almost as a right to be allowed to pick some of his apples when they are uncontrolled. A more serious offence is the theft of milk from another's cow. But among the lower ranks it is regarded as a permissable thing to "suck" another's cow, *i. e.* to milk directly into one's mouth, whenever they chance upon a milkable cow in the field. Likewise, a man who has little prestige beforehand will not lose much more prestige if he sometimes shirks his turn to do a rotatory job, for instance to turn in the sheep in the evening. Such small deviations from the rules are simply taken into account: one actually expects nothing more from "those who don't work".

However, these conditions do not seriously endanger the consistency of the social order. By a general view of the social order in Tristan da Cunha, the first thing that leaps to the eye of the observer is the strong consistency of this order. Apparently, the want of an institutional order does not in the least affect the efficiency of the social order. We have already learned to know the exceptional strength of the group character in this community, which tolerates no serious deviations from the accepted patterns of general attitudes. We have also repeatedly referred to the strong conservatism of the Tristan islanders, which has caused a stagnation in the development of cultural forms and has given the whole culture a conspicuously conventional stamp. On the whole, the social life of the islanders runs very smoothly without many breaches or serious controversies because in nearly every question that may arise the islanders seem to follow a settled form of solution, prescribed by custom and leaving no doubt as to the right and duty of each member in every case or situation. Actual breaches of the social order, therefore, are rare, and "crime" is largely confined to petty thieving. The more important social codes stand firm and are felt as binding equally by high and low. There is only a difference in degree of the strictness of their fulfilment.

Discussion.

We have now given a survey of the social life of the Tristan islanders in its various aspects, and with its underlying general attitudes, and have found a material and social culture which must certainly be described as genuinely European, but extremely old-fashioned and primitive, and with many peculiar forms by which it differs more or less from the proper European society.

This thoroughly European character of the Tristan culture cannot surprise when we consider the history of the community. Certainly, from an anthropological point of view the population of Tristan da Cunha must be described as hybrids. Their ancestors were partly white and partly coloured people, and they were of widely different nationalities. However, the greater part of them where Europeans, or Americans of European origin, and of these European settlers, again, the greater part were of English or half English origin. This applies especially to the early settlers. As a matter of fact, of the eleven men signing the agreement of 1821, all were probably English except William Glass, who was a Scotchman. And of 31 persons known to have settled on the island during the first twenty years (1817—1836), at least 21 came from England or from English colonies. It should further be kept in mind that nearly all settlers and visitors, English as well as others, were sailors, bringing with them elements of a culture which, certainly, to some degree was international or general European but, even in the last century, was strongly determined by a predominant English influence. Moreover, the five coloured women who settled down on the island and became the first ancestresses of the present colony, had probably grown up in a European or Semi-European milieu. One of them has been described as a "Cape Creole" — whatever that may be. From her surname, Leenders, she appears to have been, most probably, of Boer origin. Of the others, one is known for certain to have had an English father, and their surnames are all good English family names, Williams and Philips. Also their first names, Maria, Mary, Sarah, and Susannah, are European, mostly English forms of Biblical names. Further, it should be noted that these women came from St. Helena, an island which had been uninhabited until the Europeans came there, whereto the coloured population had been brought by the Europeans as their servants or slaves, and where, therefore, the development of an original "coloured" culture was out of question.

Thus the founders and creators of this little community were themselves — as personalities — products of the European society, from which they brought with them a series of technics, attitudes, and ready made patterns of behaviour. And, as we have seen, these technics, attitudes, and patterns of behaviour are, in many ways, mirrored in the material culture as well as in the social forms and institutions that developed in the new community.

Firstly, when William Glass and his two companions asked permission to remain on the island after the British garrison had left, they pursued not only an economic but also a definite social goal. It was obviously their conscious intention, not only to start a business enterprise of their own, but also — and possibly in the first place — to found a little independent community where they could form their lives, and especially their social life, in accordance with their own social ideas, emancipated from all bonds and ties which, in the European society of those days, rested particularly heavily on the members of their own class. That this was their intention is seen from the agreement that they made in common and signed in the presence of the chief of the garrison — a regular and solemn *contrat social*. In other words, the original settlers tried to realize a definite social programme: They brought with them to Tristan a merely theoretical, but nevertheless ready-made social system, at least as far as its basic principles are concerned, and with conscious and very definite ideas of certain attitudes and norms of behaviour that they wished to realize in their new home. And though this Utopia had an obvious front against the European society of that time with its marked and strongly felt social differences, and though the foundation of an independent community in Tristan da Cunha according to these principles implied an emancipation of its members from the same European society, yet the social idea on which the new community was based was entirely the produce of the same European society. In this idea we recognize an off-shoot of the social and political ideas that, even in the first part of last century, had a prevailing influence among the members of certain classes in Europe, and formed the bearing principles of the French and many other more or less violent revolutions about that time: the ideas of "liberty, equality, and fraternity". From the strong accentuation of equality in the first Tristan agreement it is evident that the founders of the community were animated by the same ideas, and that it was their conscious intention to form their new community in accordance with them. Thus, the very base and the first leading principle of the Tristan community was a European idea of society which was laid upon the new community in a ready-made form.

But far more important than this conscious, but merely theoretical, idea of society, and of much greater significance for the technical and social forms that developed in Tristan da Cunha, were the more or less habitual and unconscious attitudes and patterns of behaviour that the settlers brought with them from their old milieu as more or less integral traits of their characters. Man can move away from a community in which he feels that he cannot realize his life according to his ideals. But he cannot run away from the influence of the milieu that formed his character, any more than he can escape from his own self. Wherever he goes, and under whatever conditions he settles, he will always more or less carry the stamp of his original social environment, bringing along with him essential traits of his social heritage in the shape of habitual attitudes and patterns of behaviour which will be active in forming his new life, whether he is conscious of the fact or not. We have seen more than one example in the foregoing that such traits of the social heritage of the settlers have had a strong influence on the social forms in Tristan da Cunha, and that the habitual attitudes and patterns of behaviour that the settlers brought with them from their European milieu have asserted themselves in the formation of the social life on the island, though in some respects they were strongly opposed to the consciously instituted social order of the community. Nearly every aspect of social life in Tristan da Cunha shows more or less distinct signs of this influence. It evinces itself in the same degree through the islanders' attitudes towards religion and morals and in their opinions about structural, administrative, and economic questions. Thus, the inherited positive attitude of the settlers towards such an insitution as the conjugal family has obviously been operative in the development of the community from a cooperating and economically compact unit into a group of more or less independent families. And their habitual attitudes towards the relation between the sexes as well as their inherited opinions concerning the relation of parents to children and *vice versa* have almost entirely formed their domestic life. In the economic life of the community it is characteristic that the originally instituted communism and collectivism very soon had to be abandoned, partly because they did not agree with the settlers' habitual attitudes towards joint and private ownership. And so on.

Thus, though the Tristan community was founded in conscious opposition to European society, and with the clear intention of creating a community of a better kind than those European communities that the settlers had left behind, it was from the outset subject to a not inconsiderable influence from social forms and institutions, attitudes, and patterns of behaviour created by the same European communities. And so strong was this influence that it frustrated the realization of the approved social programme in essential points.

Moreover, it should be remarked that this influence of European society was not limited to the original settlers. Throughout the history of the community up to the first decades of this century it was constantly renewed through the advent of new settlers, through the frequently prolonged visits of shipwrecked crews, and through missionaries. On one or two occasions, as we have seen, the islanders tried to protect their community against undesirable foreign influences by excluding from their group such elements that directly disagreed with their approved social order. Nevertheless, new settlers arrived and shipwrecked crews were entertained, and though the former, at least, may have agreed with the original settlers in their opposition to European society and in their passion for the principle of social equality, they all nevertheless brought with them their habitual attitudes and opinions and, no doubt, must have more or less influenced the attitudes and opinions of the islanders in many ways. In addition, there is the influence of the English missionaries. Although this influence is not so great as one should think — except in purely religious matters — it has certainly been operative in forming the islanders' attitudes also in other aspects of their social and individual life.

The culture of Tristan da Cunha, therefore, — material as well as social — is not typical of such a culture that one expects to find amongst a hybrid people. It is no compound culture originating from a mixture of two or more different cultures, such as we find in Pitcairn Island in the early years, before the European and American contacts had grown to any importance, where the population created a somewhat original culture by taking up useful elements from both Tahitian and English cultures (Shapiro, 1936, p. 145 sq.), or like the culture of the Rehoboth Hybrids, which has been derived from three different sources, namely Boer, Hottentot, and German cultures (Fischer, 1913, p. 228 sq.). Unlike these typical mixed cultures, the culture of Tristan da Cunha has been built up entirely and exclusively on a European base.

It cannot even be seen that the mixture of different European nationalities in Tristan has stamped this culture to any perceptible degree. Even from this reduced angle we cannot justly characterize the Tristan culture as a compound culture. Indeed, of the many nations represented in Tristan da Cunha, only one may be said to have put its stamp on the island culture, and this in a decisive way: that is the English, or, rather, the British. Not only is the language of purely English origin, with no traces —as far as the writer could find — of loans from other European languages. Actually, the whole of the Tristan culture is English in its origin — as far as it can be traced back to specific national sources at all, and does not belong to the general European-American culture. This applies to all aspects of Tristan culture, the social and spiritual no less than the material. No other nations have contributed in like manner with specific culture elements to the development of Tristan culture. Their contributions, anyhow, are quite negligible compared with the predominant English influence.

The more interesting, from a sociological point of view, are those in relation to the European society really peculiar forms of social life which have developed in Tristan da Cunha, in material culture, in structure and organization, in conditions and forms of co-operation, and, last but not least, in certain basic attitudes and ideas which have been determinant of the whole group character of the community. And these peculiar forms are not due to an influence upon the Tristan community from other communities or groups but have developed independently in Tristan da Cunha as an adaptation of the European culture to the special conditions of this community. It is also interesting to note that these peculiar forms of social life partly run counter, not only to the European forms which the settlers unconsciously brought with them to Tristan da Cunha, but also of those forms of social life which were consciously instituted by the first settlers. These specific forms of social life have grown out of the peculiar situation of the community, spontaneously, without the conscious agency of those individuals who brought them into play through their own behaviour, and even in contrast to the clear and conscious intentions of these individuals as to the social forms that they wanted to realize in their new community.

Thus, the culture of Tristan da Cunha illustrates a problem which is just as important, or at least as interesting, as the question of "culture contact": the problem of the adjustment of a highly developed culture to a new and peculiar physical environment.

The conditions of the Tristan community are peculiar in one particular respect: Here is a group of less than 200 members living together on a sharply bounded territory with a plane area of altogether little more than 110 km², with very limited natural resources, and so secluded from the rest of the world that the islanders practically never come into contact with other people except when occasionally, and very rarely, a ship happens to make a touch. Although parallels may be found, these conditions certainly place Tristan da Cunha in a peculiar position in relation to the proper European society as well as, on the whole, to the more comprehensive and complex society which is the normal form of human society.

This fact, in a way, reduces the significance of the sociological material from Tristan da Cunha. In the first place, as we have already remarked, a statistical study, or "quantitative analysis", based on this limited material would be rather valueless. It should further be kept in mind that, as the situation of this community is atypical, even the greater part of the peculiar forms of social life found in Tristan da Cunha must possibly be regarded as atypical of human society. It might be maintained, therefore, that, although the community of Tristan da Cunha may be interesting in itself as a peculiar and curious form of human society, it has very little bearing on human society in its normal forms. Besides, the Tristan culture is only a "secondary" form of culture which has come into existence through a "degeneration" of the highly developed European culture. And, though one may disagree with this view, it is evident that any form of generalization or direct transmission of obser- evident that any form of generalization or direct transmission of observations and results from the Tristan community to a wider and more complex social order is precluded.

Nevertheless, however exceptional the conditions under which it has developed, and however unique the social forms brought forth by these conditions, the Tristan community is still a manifestation of human society and has as such a claim on interest from a sociological point of view. And from this angle the strong isolation and the limited size of the community is even of great importance as it means a considerable simplification of the sociological problems and makes the material perspicuous to a degree that is hardly found in any "normal" community, where a longer historical development and a diversity of external (extra-communal) relationships and influences usually make conditions more complex. Certainly, such external relationships and influences — namely from the European society — have not been absolutely absent in Tristan da Cunha. But they are of little significance compared to the conditions generally found in other human groups that live in a constant and live contact with other groups and communities. Here we have had a singular opportunity to see a community grow up from the very base of its foundation under a minimum of influence from other social systems, to study its social forms and institutions under "laboratory conditions", so to say, with the number of unknown factors influencing the course of the development reduced to a minimum. And though the community may be atypical of human society, thus precluding a direct traduction of observations and results to a wider social order, even the peculiar forms of this small and isolated community will — when due considerations are made to the peculiar conditions under which they have developed — be able to throw some light upon human society as a whole, also in its more complex forms.

From this angle the adjustment of the highly developed European culture to this strictly bounded environment with its very limited natural resources is even one of the most interesting traits of Tristan sociology.

In the first place, the strong isolation of the community, together with its poverty of natural resources, has naturally had a most conspicuous influence upon the material culture. It is evident already from the small size of the territory and its very limited variety of natural resources that it could not in itself answer the claims that had to be laid upon it for a somewhat full display of European culture, even in its simplest form. Every form of culture — especially every form of material culture — is dependent on the physical character of the territory within which it has its growth. It is limited in its growth and in its display by the possibilities offered by this territory in the form of materials and other economic resources for the produce, firstly of the substantial articles of food, clothing, housing, etc., and then of the incorporeal institutions and organizations which form its more mediate expressions. It is certainly true that culture always involves some degree of human control over the physical environment. Man — as compared with other animals — has a strong ability to modify his habitat to the end that it should better serve his needs, but he can only do so within the limits of the physically given possibilities. It is also true that the growth of civilization makes man "less directly and less completely dependent upon and influenced by the immediate or local environment" (MacIver, 1937, p. 90). But this — relative — independence from the more immediate environment is only achieved through a contact with a wider geographical area with a greater variety of natural resources.

It is quite clear, therefore, that a main condition for the keeping up of a European standard in Tristan da Cunha would be a constant and regular intercourse with the outer world, with a mutual exchange of products. All attempts, however, to establish such regular intercourse between Tristan and the outer world have failed, mainly because of the want of a satisfactory harbour in Tristan. Certainly, the live traffic of American whalers in the waters surrounding Tristan as well as the frequent, though irregular, visits of the clippers during last century have been of great importance to the Tristan islanders, not only in an economic, but also in a cultural respect. No doubt this traffic has, throughout the greater part of last century, kept up a cultural standard in Tristan da Cunha which was probably not far from that of a corresponding European community. But from the end of last century the Tristan community grew more and more isolated from the rest of the world. This increasing isolation led in the first instance to an impoverishment of the physical environment through a more intense utilization of its own natural sources, which, on account of the limited size and strictly bounded character of the territory, very soon resulted in the exhaustion of the most important of them. But the cessation of the traffic round Tristan meant something more than that. It meant a partly severance of the veins that connected Tristan da Cunha with the proper European culture. And the result was not only the removal of an important impulse to the renewal and further growth of the culture, but also the preclusion of the necessary supplies for the keeping up of the cultural standard already achieved. Actually, through this isolation the Tristan community was thrown back on a primitive stage of culture, wherein it was again made more directly and more completely dependent upon the immediate environment. And on account of the character and quality of this immediate environment, this process implied — and could not but imply — a perceptible primitivization of its culture.

Thus, the strong isolation of the Tristan community has naturally involved a marked simplification of the technics and a considerable lowering of the standard of living. Many luxuries which belong to the daily routine of a European community are wanting in Tristan da Cunha, and even a number of things that are reckoned as necessaries in the proper European culture area are totally missed, or are reduced to rare luxuries. A constant want of tools reduces the methods in hunting, fishing, and agriculture to the most primitive ones, and the want of materials as well as of tools puts a limit to the amount and quality of new inventions that can be made to compensate for these wants. However, the islanders have developed a remarkable dexterity in making up a serviceable object from poor materials and with the most primitive tools, and though the product is often but a poor substitute for the wanted thing, in certain aspects of their technical culture the Tristan islanders have really created new, more or less original, forms which are better adapted to the special conditions of Tristan da Cunha than their European equivalents. Here we may, in the first place, remind of the islanders' boats, which represent an almost entirely new boat-type, thoroughly adapted to the special conditions of the Tristan Islands.

Equally important is the effect of the insular condition of the community upon the social culture in a more narrow sense of the word. In this aspect of life the isolation had to become even more complete than in the economic or technical domain. For, while elements of material culture are still imported in a substantial way through the trade with passing ships and otherwise, social forms and institutions, patterns of behaviour as well as their underlying attitudes, cannot be bartered like the artefacts of a foreign culture, but can only be introduced and embodied in the already existing social culture through a slow process of spiritual influence. In this respect, therefore, the influence of European society has been still less considerable than in the technical domain. Besides, as we have seen, the isolation of this small community has actually created a completely new and peculiar social situation: In that the outward social relationships of this small and sharply defined group were reduced to the transient and superficial contact with passing ships, the community itself was reduced to an isolated face-to-face group, a fact which could not fail to have the greatest influence upon the social life of the islanders.

Even here the isolation appears to have caused a marked primitivization of the culture. Actually, in nearly all aspects of the islanders' social life the developed forms of the European culture have been abandoned and have given room for more primitive forms. It is as if the very isolation of this small group has caused a decortication of superfluous forms, letting only the elements of social culture remain.

There is, in the first place, the relative absense of institutional forms which we have found in many aspects of the social life of the islanders, in their structure and organization, in their customs and administration of justice, in their leadership conditions, and in their labour. This trait is the more interesting as the mother society of the Tristan community, the European society, is, and was, a strongly institutionalized society, so that at one time European philosophers could only think of human society in the terms of a social contract deliberately and consciously set up by individuals for certain very rational ends. We should also remind of the fact that the Tristan community itself was originally started as an institutional group based on a formal contract between the members. These more developed forms of society have for the greater part been abandoned and replaced by the more primitive spontaneous forms.

There are other primitive traits of social culture which have a more direct concern with the primitive economic conditions of the community. Here we may remind of the rather loose property conditions, especially with regard to landed property, and of the prevalence of original acquisition by occupation and labour. The unorganized feature of the social order is also revealed in the labour conditions, especially in the forms and range of co-operation. We may think of the prevalence of direct and unorganized co-operation, with no established division of labour except that between the various sex and age groups. This markedly primitive trait has an obvious connection with the primitive character of the technics, there being no important handiwork that demands a special skill or training. In close connection with this trait we may also remind of the reduction of the comprehensive co-operation of the whole community and the corresponding growing importance of the individual house as an economic unit, in other words, the atomistic character of the community.

Certainly, the dissolution of the originally rather socialistic community into a group of self-dependent families, or houses, is partly due to the assertion of the European social heritage of the settlers with its strongly positive attitude towards the family as a social group. But the paramount importance of the domestic group is also a markedly primitive trait. We do not need go to the highest cultures, or to an authoritarian community like Sparta or the modern totalitarian state, to find that important social functions are apt to be taken over by larger social units. This is already the case in many — or, may be, most — societies of an archaic type. And with an increasing specialization of labour the more important economic and social functions are transferred to new and always more extensive and complex groups. This development always means that the individual is partly loosened from his family. The family as a social and economic factor is dissolved in a greater or less degree and is fused in a higher unit, or in several specialized units. Our own industrial society clearly shows this tendency (cp. Baber, 1939, p. 585 sq.). Possibly we must turn to so primitive conditions as those of the Australian Aborigines in order to find a society where the family unit plays a social rôle comparable to that of the Tristan house.[1] And even in the Australian society the single families are knit together into clans by means of a very complicated system which, as a matter of fact, represents a higher degree of social civilization than the rudiments of a wider social organization that are found in Tristan da Cunha.[2]

But the effect of the peculiar insular condition of this community is not confined to the overt forms of social life. It is evidently of a more profound nature, and in certain respects it has even clearly influenced the very group character of the community as well as the individual characters of the islanders.

It is a fact familiar to most of us that in a small, well defined, and to a more or less degree secluded community one is much more tied up by customs, usages, and conventions than in a more comprehensive and less secluded milieu. In the large city one is, as an individual, generally much more free than in a small town or village. There are two main reasons for this fact. Firstly, there is the great lucidity of a small community. In the townlet everybody is an acquaintance of anybody else and has no chance to conceal his identity or to evade the curious interest of his fellows, such as he may in the large city where people, though they are living close together, are generally more foreign to eachother than the members of even the most extended and the most scattered neighbourhood. Hence, in a complex society the members "are more liberated or more detached from group control over their intimate life" (MacIver), while in a small community they are always under the Argus-eyed vigilance of the fellows who, thus, exercise a strict surveillance with all the doings and sayings of any member. Besides, in a small community — especially if it is relatively secluded — there is a strong concentration of loyalty. In a large-scale society with its generally rather complex social conditions the loyalty and solidarity of the members are likely to be decentralized and dispersed among various minor groups and associations, each with its specific group character and its specific social codes, and each claiming a specific loyalty from its members. And there is always the possibility of new associations, and even of migration. In the small and secluded community the satisfaction of the members' need of society on a broader scale is more or less monopolized by the community, and by the community as a whole. The members — though they may be physically more scattered than the members of a large-scale society — are psychicly thrown more closely together and are left to eachother's company for the satisfaction of their social needs. The possibilities of choosing one's circle of acquaintance are relatively small. That is why the demand of conformity with the major codes are stronger, and why the codes themselves are more imperative in a small and secluded community than in a complex society, where everyone may choose his associates more or less in accordance with his own individual dispositions and personal character traits. In consequence of this, in a small community the psychic adjustment of the members is much more complete than in a large-scale society, with a stronger repression of individual inclinations and dispositions.

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[1] For the importance of the family unit in the Australian society, see particularly Malinowski, 1913, especially chapters V and VIII.

[2] On "primitive atomism", see also Sumner and Keller, 1927/28, vol. I, p. 16 sq., vol. IV, p. 1 sq.

In Tristan da Cunha both factors, a great lucidity and a strong concentration of loyalty, are present to a very high degree. With little more than a hundred adult persons living together in a hamlet and associating daily in work and play, the Tristan islanders know eachother very well, as well as it is at all possible to know a person without living constantly under the same roof. And quite naturally they show a keen interest in each other's doings and failures. Besides, in consequence of the strong isolation, there is naturally an absolute concentration of loyalty. Certainly, the loyalty towards the individual house is generally very strong and has obviously greatly impaired the solidarity of the community as a whole. But the house can never satisfy the need of society on a broader scale. The only source of satisfaction of this need is "the island".

In accordance with these conditions, in Tristan da Cunha there is a remarkable great consistency of the social order. Actually, this is one of the most conspicuous traits of the social life of the islanders. This firmness of the social order applies both to the specific codes of overt action and behaviour and to the more general patterns of attitude that constitute the group character of the community. We have remarked that actual breaches of this order only seldom occur. Crime is practically unknown, and sentiments or dispositions that do not harmonize with the prescribed attitudes rarely come into expression. In all aspects of life we are met with the same conventionalism and adherence to the prescribed forms, whether we are concerned with the details of dress and house-building or with the general and specific attitudes and ideas by which the islanders meet their daily problems. Apparently, the social codes of this community are in possession of a very strong coercive power, by virtue of which they have been productive of a thorough adjustment and conformity of the individual characters, even under the consistent repression of certain rather basic innate drives and dispositions. The strength of the psychic forces involved in this process of adjustment is revealed by the explosive outbreaks of temperamental dispositions and repressed emotions in the form of hysteric fits which occurred shortly before and during our visit to the island.

This great consistency of the social order is the immediate background of the relative absence of institutional forms in the social life of the islanders. Evidently, the more developed institutional forms that belonged to the social heritage of the settlers as well as to the original order of the Tristan community have been abandoned because they were superfluous in this isolated face-to-face group with its thorough psychic adjustment of the members.

But these conditions have not only created a social order with an exceptional firmness against any breach or deviation. The strong consistency of the social order in Tristan da Cunha has also involved a stagnation in the development of cultural forms. The thorough adaptation of the islanders to their specific social and physical environment has actually produced a "life organization" of the community as well as of the individual islanders so firm that it almost reminds of the innate and unchangeable "life organization" of the lower animals. This thorough adaptation has actually automatized the islanders' behaviour and, above all, their general attitudes to such a degree that they have lost much of their psychic adaptability and faculty of re-adjustment to new conditions. That is obviously the reason why so many emigrants from the last migration period in the 80'ies and 90'ies later returned home to Tristan, while many others have gone to the dogs in the civilized world. Only a few of them have been able to make a career, and even they must have severely felt the difficulties of the re-adjustment. As one of them said to me when I met him in Simonstown and discussed the question with him: "Tristan is so different from anything else!"[1] This reduced faculty of re-adjustment is also the reason why the islanders were unable to utilize a sudden and unexpected change in their physical environment represented by the stranded body of a dead whale (see p. 64). That is even why they have been unable to re-adjust to the new economical situation that arose in consequence of the isolation, and have not even quite realized that a change has taken place at all. On the whole, this is the background of the strong conservatism of the Tristan islanders which we have met in all aspects of their culture, in their material culture and in their social life, in their way of dressing as well as in their attitudes. Thus, as we have seen, many aspects of the Tristan culture still manifest themselves in forms which belonged to the European culture of the 19th century. And these forms are often rigidly adhered to, like a bulwark against cultural decay. As a matter of fact, these old forms of cultural life have achieved a kind of supremacy over any new forms that might be introduced, and cause a firm, though unconscious, resistance to be made to any outside influence, though it may come from new and modern forms of the highly admired European culture. On the whole, therefore, the Tristan islanders make a curious old-fashioned impression on European visitors, and in many respects we may really regard the Tristan community as a kind of relic of the days of the clippers.

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[1] A study of the various destinies of the emigrants from Tristan da Cunha would be of great interest as a supplement to the Tristan sociology, but could naturally not be included in the programme of the Expedition. However, during our stay in South Africa on the way out to Tristan, I had the opportunity to talk to a few of these emigrants, and had interviews with three of them, chiefly about conditions in Tristan da Cunha in the old days. They

While the strong isolation of the Tristan community has thus involved a natural concentration of the islanders' loyalty and thereby created a strong group character and a great consistency of the social order, it has, on the other hand, obviously caused a debilitation of the islanders' group consciousness and solidarity. This sounds rather paradoxical, but is explained by the almost complete isolation of the community. The islanders' need of conformity with the codes and patterns of the group — in other words: their loyalty — is strong because this group is the only source of satisfaction of the gregarious drive. But their consciousness of kind, *i. e.* their sense of belonging together as an exclusive unit of their own — in other words: their solidarity — is weak because they seldom come into touch with other people.

Solidarity may be described as a sentiment of coherency based on a consciousness of a specific likeness by which the members of a group are distinguished from people outside the group. Solidarity, thus, is based on "consciousness of kind" (Giddings), and this consciousness

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all seemed to have made quite a good career in their new milieu — one of them was engaged in the Tramway Company in Cape Town and had advanced to an inspector, and another was commonly reckoned as the most influential man among the coloured population in Simonstown — and they all spoke more or less contemptuous about those who had given up and had returned to Tristan.

always implies, and is even conditioned by, the recognition of a difference between the members of the group and the outsiders, usually so that the members are thought to be in possession of certain qualities or attributes which the others have not got. Such consciousness of likeness and difference is always of a more or less affective nature, arousing sympathy between fellows and antagonism towards foreigners. This is the psychological background of group hostility which is a so characteristic feature of human society all over the world (see, *e. g.*, Sumner and Keller, 1927—28, vol. I, § 137, p. 356 sq.). And this is even the foundation of solidarity. The two affections are correlatives, and both are the outcome of the "consciousness of kind".

Thus, every group has a tendency to close itself up, and consolidate itself, against its social environment. And the closer the contact is with an alien social environment, the stronger is the tendency to consolidation, *i. e.*, the more conspicuous is the difference likely to be, and the stronger the "consciousness of kind" with its sequel of antagonism and solidarity. On this background we may draw a distinction between relatively close communities, with a sharp bounding outward and a firm inner structure (strong solidarity), and relatively open communities, with a more fluid outer bounding and a laxer inner structure (weak solidarity). The degree of openness is then dependent, partly upon the degree of peculiarity of the community in relation to its surroundings, partly upon the degree of contact with the same surroundings.

In Tristan da Cunha the one condition for the development of a close community is present to a high degree: The social order of this community is in many respects peculiar in relation to its nearest social environment. However, this factor is almost totally outweighed by the lack of contact with the outer world. The islanders very seldom come in touch with other people, and, above all, there is no other definite group that closes on them. They are economically, culturally, and socially sovereign in their territory. Under these circumstances there is no opportunity to develop a strong "consciousness of kind". The Tristan community, therefore, is a markedly open community.

In the first place, the solidarity of the community is very weak. Indeed, a certain "consciousness of kind" is found even here, and, naturally, there is even a solidarity of the community. But the "consciousness of kind" is evidently not strong enough to create a firm inner structure and a somewhat collectivistic life attitude. This is the more profound background of the thorough individualistic life attitude of the islanders which we have repeatedly referred to in the foregoing. And that is the reason why the Tristan community appears as little more than an aggregate of independent families or houses, with a very limited co-operation of the whole group. It is also characteristic that such inclusive co-operation is largely confined to such situations where the islanders come into a more close, though temporary, contact with the outer world. We have repeatedly pointed out that the dissolution of the socialistic community into a group of self-dependent houses is a feature of the assertion of the social heritage of the settlers. And that may be so. But this development has obviously been favoured by the isolation of the community, which prevented the development, or maintenance, of a strong "consciousness of kind".

The strong isolation of the community may also explain the truly humanistic — almost universalistic — attitude of the islanders as revealed by their great hospitality, kindness, and open confidence towards foreigners. That there is a close connection between individualism and universalism is nothing new — though it is frequently overlooked — and is not peculiar to Tristan da Cunha. The antithesis of individualism is not universalism, as often presumed, but collectivism, which always implies bounding, exclusivity, and particularism. In Tristan da Cunha the humanistic attitude towards foreigners has an obvious connection with the rather weak development of the "consciousness of kind" and, on the whole, with the open feature of the community, with its lack of a sharp outward bounding.

There is a close connection between this latter trait and the islanders' great love of peace and their reprobation of any form of violence, which is the leading principle of all their attitudes and behaviour, both in relation to foreigners and in their mutual convivialities. This is actually the most outstanding trait of the islanders' group character. Apparently, the strong individualism of the islanders has not resulted in a war of each against all.

Here we are approaching the much discussed problem of warlikeness and peacefulness, and the question whether man is by nature, or "instinctively", pugnacious or pacific. The evidence of ethnological research does not seem to be much in favour of a pacific instinct in man. It shows that most people fight and are apt to use violence for the settling of their great and small troubles. Only very few people are described as thoroughly pacific, such as the Eskimo, the Veddahs of Ceylon, and a few others (see Sumner and Keller, 1927—28, vol. I, p. 368 sq., vol. IV, p. 125 sq.). And in some of these instances a closer examination will reveal that even these people use violence in certain situations, and that, although organized war may be unknown, quarrels and fights and even murder occur. Apparently, such an absolute pacifism as that of Tristan is extremely rare.

However, there is at least one instance of a pacifism comparable to that of Tristan, to which I should like to draw attention in this connection. That is the case of Pitcairn, in the South Pacific, where the mutineers of the famous *Bounty* together with their Tahitian women have founded an independent community in many respects very similar to that of Tristan. Even here is a community where people live in an almost complete harmony, where quarrels are rare and fights are unknown, and where, on the whole, any form of violence is highly disapproved (Shapiro, 1936, p. 169; Gane, 1932, p. 163 sq.). But there is even another feature which the two communities of Tristan and Pitcairn have in common. That is the almost complete isolation. And it is very tempting to combine the two traits even logically, seeing the former as a consequence of the latter.

In the first place, the strong concentration of loyalty in a small and isolated community — and even Pitcairn is a small community with a very consistent social order — may be operative in preventing open breaches of the solidarity and may encourage such attitudes as kindness and considerateness. The community itself is the only source of satisfaction of the need of society on a broader scale. So one cannot afford to spoil it by letting differences, disagreements, or antagonisms play any important rôle. Certainly, a group of persons casually thrown together in isolation, such as, *e. g.*, a shipwrecked crew, frequently quarrel. The beginnings of the Pitcairn community present an illustrative example of this: Of the eight mutineers founding the settlement five were murdered, and two comitted suicide. And even in the domain of Tristan da Cunha there is a striking example of such antagonism within an isolated group, namely in the case of the shipwrecked crew and passengers of the *Blenden Hall* (see p. 22 and Lockhart, 1933). However, here we are concerned with fresh groups which have not yet developed a social order of their own that could serve as a focus of loyalty. And the very conflicts occurring in such a group may actually be regarded as features of a beginning adjustment of the constituent persons.

Besides, there is another factor which indicates a causal connection between pacifism and isolation. We have already pointed to the fact that group contact always involves group antagonism. A connection between two distinctly different groups will always lead to friction, which will be stronger the closer the contact is. Under such circumstances antagonistic attitudes and actions will be sanctioned by either group, and even appreciated, namely if they are directed against members of the other group. And if antagonisms are first sanctioned by the group they may soon grow into a habit with the individuals, and a certain warlikeness will become a more or less intrinsic trait of the individual characters. In an isolated group, like Tristan, or Pitcairn, there is no opportunity of such sanctioning of antagonistic attitudes as the group is not likely to have any enemies. Any such attitude can only be felt as a breach of solidarity. Therefore it is disapproved and repressed.

This does not mean that isolation is the only condition for the development of a pacific life attitude. But it may give us a pointer for the solution of the problem of pacifism. Whether man is by nature pugnacious or pacific is a question that cannot be answered in this alternative form. The germ of both attitudes lies in the gregarious drive, namely as a desire of peace within the group, and warlikeness against all foreign and disturbing elements. It depends upon the social situation whether the one or the other should prevail in the mind of individuals. In Tristan da Cunha the strong isolation has determined the development also in this respect.

Thus in Tristan da Cunha we are concerned with a culture with distinct roots in European culture, a culture which we may even yet characterize as a genuine European culture in every respect, but simplified and in certain aspects peculiar in its form according to the peculiar conditions under which it has developed. And the all important factor in the development of this simplified and peculiar form of European culture is the strong isolation of the community, which has influenced and determined its social forms in nearly every aspect of life right into the basis of its group character.

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